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# DRUG & CHEMICAL MARKETS

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VOL. V

NEW YORK, NOVEMBER 5, 1919

No. 61

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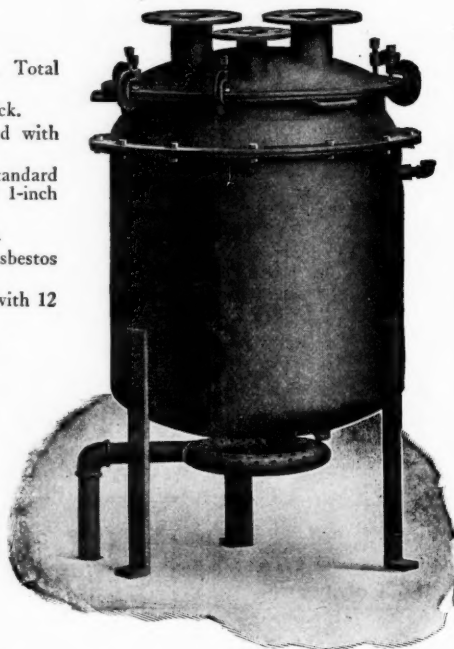
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## Quinine Prospects for 1920

The temporary shortage of quinine in the United States, caused by the longshoremen's strike which prevented the unloading of cargoes of cinchona bark received at New York, will soon be relieved, probably. Meantime, many wholesalers at important points in the South where the demand is continuous for quinine for malaria, and in some northern cities where influenza has made its appearance, are limiting the orders of retail druggists to a few ounces.

The broader question of world supply rests with the Dutch planters and manufacturers who hold a practical monopoly of cinchona and quinine. They have been extremely fair in the allotment of cinchona bark, as is shown by the announcement in DRUG & CHEMICAL MARKETS, this week, and also in prices fixed, heretofore. New prices are in course of preparation at Amsterdam, and while there may be a slight advance owing to increased costs of production, it can be said with justice that the Dutch manufacturers have never taken advantage of the opportunity which they have, owing to the monopoly, to charge unreasonable prices, and it is not probable that they will now depart from the sound business principles which have marked their international transactions.

Under a new agreement by the cinchona planters 200,000 kilos of cinchona bark of the 1920 harvest are to be allotted to the Bandoeng quinine factory and the balance will be distributed in Europe and America. As the average crop of Dutch East Indies cinchona is 500,000 kilos, there is every prospect that the world will not suffer for want of quinine during the coming year.

## Can There Be a Standard Workday?

The Industrial Conference overlooked an important subject when it omitted from its programme a discussion of a standard workday for leading trades. William H. Nichols, Jr., has aroused great interest by his comment that an eight-hour day would drive the farmer into bankruptcy, or else send the price of foodstuffs so high that we would all starve; and for certain workers in the steel trade an eight-hour day would kill any man. The Labor group at the Conference might have found some difficulty in formulating a schedule which would satisfy their constituents, even in a few industries, and if they named a six-hour day for soap makers, as suggested by Lord Leverhulme, proprietor of the largest soap factory in England, there would have been a riot unless other workers were equally favored.

So many important industrial questions hang upon the hours of work, that it would seem ad-

visible for manufacturers to institute a Department of Research in some of their organizations to study the relation of the eight-hour day and the six-hour day to the production capacity of a dozen or more industries, and the effect on costs. Lord Leverhulme calculated that if an unfatigued worker could produce as much in six hours as formerly was produced in eight hours, the figures as to cost of production would show a great gain in economical production: 2,000 items would then be produced in a 72-hour week of two shifts of 36 hours, each shift at a cost of £1,000 for overhead charges and £2,000 for wages, a total of £3,000 or of 30 shillings per item, which would be a reduction of 25 per cent, on cost of production compared with cost when working a 48-hour week, and producing only 1,000 items at a cost of 40 shillings per item.

Whether American labor, which has always produced in a larger ratio than labor in European countries, would be able or willing to speed up in order to produce as much in six hours as is now produced in eight hours, may be questioned. A practical study of the situation at mills and factories might enlighten both Capital and Labor.

### Some Phases of Research Work

The fact that it required twenty years work of leading chemists to obtain artificial indigo in commercial quantities serves as a text for Dr. Benjamin Harrow, of Columbia University, to impress the lesson that research is one of the most important factors in developing an industry. It also requires capital as may be judged by the efforts of Germany to establish a nitrate factory for the Haber process, for which the Government spent \$25,000,000, investing \$2,500,000 in equipping a laboratory for the preliminary work. Will American manufacturers be willing to spend money freely in similar investigations? Is there any hope that the Government will aid them in the liberal way that England is doing with reference to the dye industry, and as Germany did before the war?

### Strongly Favor Metric System

Out of 58,226 petitions relating to the use of metric weights and measures in the United States, now in the keeping of the Bureau of Standards, Department of Commerce, 57,800 petitions or 99.27 per cent favor the system and only 426, or less than 1 per cent oppose it. This unqualified endorsement of metric standards for the United States is brought out in the analysis just completed at Washington of petitions sent to President Wilson and America's national legislators by prominent persons and powerful commercial, manufacturing, civic and fraternal organizations. Some of these petitions represent unanimous resolutions passed at conventions of organizations with thousands of members.

The petitions have come as a result of the efforts of the Metric Association of New York and the World Trade Club of San Francisco in explaining

the great advantages of world-wide standardization of weights and measures. The petitions were referred to the Department of Commerce. New petitions are coming every day. The classification to date shows the following distribution of petitions: Manufacturing concerns, engineering concerns, engineers, architects, contractors were 9,968 in favor and only 154 against meter-liter-gram. Chambers of commerce, trade organizations, exporters, importers were 9,974 in favor and only 51 against meter-liter-gram. Educational institutions, beneficent organizations, individuals in professions were 22,443 in favor and only 74 against this progressive movement.

### Dye Industry Is Menaced

Officials of the American Dyes Institute, leading manufacturers of dyestuffs and colors, and representatives of the Master Dyers' Association and textile interests visited Washington recently, to impress upon the Senate Finance Committee, which has charge of the Longworth bill and dye licensing system, the importance of early action. They pointed out that with the ratification of the Peace Treaty the importation of German dyes will begin, and unless the licensing plan is put in force immediately these dyes will come in competition with American dyes and the Germans will cut prices to the limit to re-establish their trade in this country.

The low exchange rate of the German mark practically nullifies the present tariff. But even a high tariff will not check German imports. The proposed licensing system included in the Longworth bill offers the only hope of protection from a fierce trade war. The Senate Finance Committee promised to take up the measure soon, but no action is probable until after the Peace Treaty is disposed of, and there may be some delay, even then, owing to the stand taken by Senator Penrose against piece-meal tariff legislation, as he describes it.

So critical is the situation considered by the American Dyes Institute that the association has sent out an appeal for immediate consideration of the Longworth bill by the Senate. The ultimate consumer, the purchaser of clothing, shirtings and other materials into which the colors enter, pays so little for the actual dye used in the manufacture of the goods that the expense means nothing. It is said that less than four ounces of a color are used in a suit of clothes, yet more dye is put into dark, heavy materials than into any other textiles. The cost of the dye is so infinitesimal that a story is told of a firm manufacturing shirtings who were obliged to pay \$850 for a barrel of a special dye wanted, during the war, and although the price previous to 1914 was only \$75, they figured that the increased cost was not worth counting in fixing the selling price of the material in which it was used.

# The Textile Industry and Its Oils

## *Treatment of Woolens and Worsteds, Silk, and Shoddy, and the Products Adapted to Each Process*

By MAJOR CHARLES V. BACON, Chemical Engineer, New York

THERE is little doubt that the purchasers of fixed oils for textile purposes are extremely discriminating, and while it may seem unnecessary, if one views and understands even in a general way the processes, which are mainly of a mechanical nature, it will be readily appreciated that oils containing excessive quantities of free fatty acids, or possessing drying or even semi-drying qualities are likely to cause undue trouble, and it is the opinion of the writer that the textile manufacturers' care in buying is fully justified.

### Wool

Wool, the natural product of the sheep, is the raw material which forms the basis of the woollen and worsted industry. It is graded both in respect to fineness of fibre and quality of staple, the best being "lamb's," which is clipped when the animal is about six months old. The second clipping, which is thicker in fibre and stronger in staple, is styled "yearlings," while the subsequent clippings, which are coarse in hair and of increased length, are indiscriminately designated as fleece.

All the above materials, while graded in accordance with standard trade practice, are for all practical purposes raw wool, which, prior to spinning into yarn and subsequent weaving into finished products, must be properly prepared. The raw wool contains foreign substances such as burrs, vegetable fibres, earthy substances fixed by the excess of fatty matter and "suint" or "yolk," which is an unctuous varnish caused by the perspiration of the skin and partly by the animal secretion. It is essential that all foreign substances be removed before the wool is prepared for spinning.

### Wool Scouring

In order that the foreign substances mentioned above may be removed, the wool is scoured. Potash, soda, silicate of soda, soap and ammonia are the most common detergents used in scouring wool. The temperature at which this is done, while always comparatively low, is regulated to suit the specific kind of wool upon which the mill may be operating.

The operation is generally conducted in machines designed for this purpose, after which all the scouring liquor is thoroughly squeezed out and the wool washed with cold or tepid water, and then dried and teased.

Soap is the one ingredient that is always used in scouring liquids. It should be practically neutral and free from added matter or fillers. As a matter of protection, it is desirable that the soap be purchased as having specified moisture and combined free fatty acid content.

Improper scouring is hazardous, hence great care has to be exercised not to injure the physical structure or the chemical composition of the fibre, while insufficient scouring endangers the scribbling and spinning and may cause the wool to resist the mordants, making it take the dye in a "streaky" manner, which imperfection will be very noticeable in the finished product.

The wool fat may also be removed by extracting the raw wool with volatile solvents such as naphtha, benzol, carbon bisulfide or carbon tetrachloride, and while

it may not remove all the dirt, it is certainly the case that the extracted fatty matter will be clean and contain less free fatty acids than that reclaimed from the scouring liquors. The wool is deodorized by a current of air or steam, after which it is rinsed in clean tepid water.

### Mechanical Operations

The dry wool after going through the teasing machine is passed on for the removal of burrs or vegetable fibres, which is accomplished by mechanical or chemical means or a combination thereof.

Oiling of the wool, which has been deprived by scouring of the fatty matter and its natural lubricant "suint," is essential, as if passed on the scribbler, without oil, considerable loss would ensue due to droppings and "flyings."

The oil applied to the wool at this stage greatly reduces the "flyings," causes the fibres to possess adhesiveness, softens and imports a smoothness to them, and, acting as a lubricant, enables the filaments to glide past each other with a minimum amount of friction, facilitating the separation and readjustment of the fibres, and, therefore, to some extent aids in preserving the natural length of the staple.

The oiled material is now passed on to another machine which further disentangles the fibres and insures more complex mixing and prepares them before carding proper, after which it is put on to the carding machine, composed of a series of rolls having numbers of cylindrical plates which have small teeth or projections over their surfaces.

Carding separates, opens, disentangles the fibre and, as it is propelled forward, the teeth of the rollers comb and actually straighten the material, causing proper blending, eliminating matted locks thus insuring the carded material the same compactness and consistency throughout.

The preparation for worsted is similar and the previously carded material is washed and drawn through vertical pins which have a further combing effect. This operation is known as "gilling," and the pins are called "gill-pins." Upon completion of this process the yarn is polished, which gives it a characteristic sheen.

### Shoddy

Shoddy is made from old rags, cloths and clippings which, after having all seams opened, are sorted and all cotton removed, and well dusted. This material is then oiled, ground and worked by processes similar to those outlined, and used with the cheaper grades of woolens.

### Cotton

Cotton, unlike wool, contains relatively small amounts of natural impurities and for many purposes scouring is unnecessary. These impurities consist essentially of waxy and resinous products, classed as pectin substances, which are rather an aid in spinning.

This waxy coating causes the fibre to be more or less water repellent and is frequently a drawback in dyeing, as it has a tendency to prevent the dye solution penetrating properly. To overcome this, it is necessary to remove the objectionable ingredients, and



this is accomplished by boiling in a solution of caustic soda, soda ash or soap, or with some oil that has the property of dissolving the waxy substance. This is termed "wetting out." When the cotton is to be bleached it is necessary to boil it out, generally under pressure, with alkali, caustic soda being commonly used, and the process is termed "boiling out."

#### Silk

Raw silk has to be "de-gummed" or "stripped," in order that the natural silk glue be removed. It is done by boiling the raw material with a neutral soap solution, usually made from non-drying oils, and after the boiling is completed the silk is washed free from soapy matter. The weight lost varies, ranging from 2 to 30 per cent, depending upon what kind of material the finished product is to be.

The residual liquors after washing, known as "boil-off liquors," contain fairly large quantities of the natural glue, and are used as an adjunct in dyeing, being added in considerable amounts to the dye bath to soften the silk after dyeing and to aid in the even distribution of the color.

#### Jute and Sisal

Jute, sisal and similar fibres are used in the manufacture of cordage, rope and bagging. The raw material is cut and dusted, after which it is treated with an emulsion of fish oil or degreas and mineral oil, and permitted to heat. This causes the natural fibre to discard its resinous substances, and the operation is called "batching."

The "batched" material is further treated, the fibres straightened and placed properly by mechanical means. Following this it is twisted, washed and scrubbed and made into cordage and either further oiled with mineral oil or polished and made into cord, rope or bagging.

#### Oils for Wool

The preferred oil for wool is olive oil, and the average mill will take this oil even at a slightly higher price, in preference to any other; in fact the use of it may be considered almost hereditary. Recently the conditions have changed, due in a large measure to war and embargoes, making its procurement practically impossible. This has made it necessary for the mill operators to seek out other non-drying oils, and fortunately these have been found to answer the purpose.

#### Olive Oil

Olive oil needs little discussion. This is the regular manufacturing grade which has been marketed for years; within the last ten years other olive oil has appeared on the market made from the residual "marc" or "pomace," from which the olive oil foots are manufactured. It is generally a little cloudy and has a characteristic odor, but is only slightly different in physical and chemical properties from olive oil obtained by expression. It is sold to the importers as refined sulphur oil, but is marketed in this country as olive oil.

Commercial olive oil, as imported, is invariably pure, but it is not uncommon to find domestic shipments lacking in this respect. It is generally sold on a stated free fatty acid content and should give, if pure a good Elaiden test, in addition to other chemical tests.

Substitutes for olive oil were at one time quite numerous, but, fortunately for the textile manufacturers, these died a natural death, although some few of them were good.

#### Tea Seed Oil

Tea seed oil, obtained in China from the seed of the tea plant or shrubs closely related, is almost identical

in all respects to olive oil. It has been imported into this country for a great many years, and has been used for blending with commercial olive oil. It is only in very recent years that it has been sold under its true name, although its use on the Continent for textile purposes has been long established. It is non-drying, gives a good Elaiden test and possesses practically all the physical and chemical properties of olive oil. The odor is different, due to drying the seed over wood fires; this causes them to be contaminated by the smoke.

#### Peanut Oil

Peanut oil, produced by pressing peanuts, is imported in vast quantities from the Far East, our imports since 1915 having amounted to over eleven million gallons, while our domestic production has increased greatly. This oil is used largely in the textile industry and its further use would almost make the industry self-contained, as it would practically free them from dependence on imported oils.

The cold-pressed oil makes an excellent edible oil, while the hot-pressed, if filtered or refined, is suitable for use in textile manufacturing. It is non-drying, and of varying acidity and color, depending upon the nuts from which the oil is pressed and the degree of refining. It is in most cases pure, but when occasionally it is found to be adulterated, the likely adulterants are sesame or cottonseed oil or even very rarely corn oil.

#### Lard Oil

Lard oil is produced by rendering the fat obtained from hogs, then warming and chilling until it granulates, when it is transferred to cloths and pressed, yielding lard oil and lard stearine. The inedible lard oil is made in a similar manner and contains the scrapings, cleanings and products obtained from dead stock.

This oil is non-drying and is offered in numerous grades of varying acidity and color. Its purity is questionable at times, and it occasionally contains corn oil or something similar, which is added with a view of reducing the cold test and acidity. It should be purchased on tests, and examined closely for iodine number, which indicates, in a measure, both the adulteration and its tendency to dry or oxidize.

#### Oleine, Elaine or Red Oil

This product, which is essentially oleic acid, is offered under a number of names. It is a product obtained in the manufacture of stearic acid (candle material) and is used in the textile industry to some extent. It would be especially interesting where the material is given a back washing, as the fatty acids emulsify readily with mild alkalies and washing out is greatly facilitated.

One thing which should be borne in mind is that the fatty acids are very likely to act on the teeth of the carding-machine and the "gilling-pins," the corrosion of which is both undesirable and expensive.

The presence of mineral acid is practically fatal, due to its corrosive action on the machinery. In recent years this trouble is not generally found, but if there is a suspicion that it is present the product should be carefully tested. This oil is rarely adulterated, the most likely adulterant being mineral oil.

#### Other Oils and Precautions

While the aforementioned oils hold the field to a large extent in the manufacture of woollens, there are the oils obtained from wool fat and other non-drying oils available, such as almond and hazelnut, which are obtained by pressing rancid nuts, but the quantities of these are limited.

It is reported that some mills use soluble or emulsifiable oils, which are mixtures of mineral and fatty

oil, carrying a certain percentage of soap, maintained in solution by the judicious addition of small quantities of alcohol. These form a very good emulsion with water, but often, after the alcohol is evaporated, they lose this property.

Certain precautions must be taken to insure against drying or semi-drying oils, as they are liable to cause spontaneous combustion, and tests should be run on questionable products, as only in this way can the buyer know positively what he is getting.

The presence of mineral acid is highly objectionable, and excessive acids are in most instances likely to exact their toll.

#### Oils for Shoddy

The oils used for shoddy and carpet manufacture vary greatly; much oil sold for this purpose finds its way to the mill under some brand of wool oil. They are mixtures of mineral oil known as wool stock with lard or animal oil and fatty acids in varying amounts. Some contain, in addition to these products, degreas and soap, which aid in the emulsifying and facilitate washing out.

They should always be examined for mineral acid, free fatty acid, fixed oil and, especially, for unsaponifiable matter, which is the cheapest ingredient and invariably forms the large proportion of fatty substances present.

#### Oils for Cotton

In the "wetting out" of cotton, sulfonated oils are used, being prepared by treating castor, corn or some other non or semi-drying oil with sulfuric acid, washing out the excess of acid and neutralizing, after which they are soluble in water. They have the property of readily dissolving the waxy matter of the cotton, and leave it somewhat whiter in color and softer in feel than if boiled with caustic soda.

Sulfonated oils or patented products of a similar character are also added in boiling out with caustic soda and are used to some extent in dyeing and printing; for the latter use they should be free from iron.

All sulfonated products contain more or less mineral matter and water, making it advisable to purchase on standards, for which methods of testing should be properly understood by both buyer and seller.

#### Oils for Silk

Practically all the oil used in the manufacture of silk is made into soap, where it is intended for de-gumming. Olive oil soap, while preferred, is rapidly giving way to other vegetable oil soaps that have been found equally valuable, provided of course that they are practically neutral.

#### Oils for Cordage

Very large quantities of oil are used by the rope cordage industries, chiefly mineral oil, which varies considerably for different purposes. For "batching" they use a comparatively light oil that will emulsify readily, and can be washed out, while some mills use an oil having in it a certain amount of paraffin, which in rope making gives a good sheen.

The fatty oils consist essentially of fish oil and degreas, though occasionally other animal fats and tallow are used. Some sulfonated oils are used in cord polishing and have a tendency to act as a lubricant and cause the sizing to remain soft and pliable.

#### Wool Washings

From the wash liquors the fatty matter is reclaimed and forms the wool grease of commerce, which is sold as degreas. When refined, it yields a product recognized by the United States Pharmacopoeia, and known as "Adeps Lanae" or "Lanolin Anhydros." It possesses the property of mixing with water, and by so doing forms the product known as lanolin.

### CINCHONA CROP AGREEMENT FOR 1920

#### Dutch Planters to Allow 200,000 Kilos for Bandoeng Quinine Factory and Remainder for United States and Europe—Average Harvest 500,000 Kilos—Quinine Prices in Preparation

A cablegram received in New York, last week, from Batavia, by Java interests here, stated that an agreement had been made by Dutch planters by the terms of which 200,000 kilos of the cinchona harvest of 1920 will go to the Bandoeng quinine factory owned by Dutch manufacturers, and the remainder of the crop to the United States and Europe. An average harvest of cinchona in the Dutch East Indies is 500,000 kilos. The United States and Europe, including Great Britain, will, therefore, have about 60 per cent of the crop to divide.

New prices are in course of preparation for 1920 and will soon be announced by Dutch interests. It is said that a new agreement will be made when the 1920 arrangement expires. The standard ruling prices for quinine sulphate are fixed by Amsterdam. In England, under the controlled price rules of the Government the sulphate is sold at 2s 11d per ounce, which is much lower than the price at which the alkaloid is sold in the United States or any other country. The London "Chemist and Druggist" is conducting an active campaign to induce the Government to relinquish control, saying in a recent issue:

"What does the Government hope to accomplish by maintaining control of quinine? So far as can be gauged for the moment, the maintenance of the control will effect nothing more than the deadlock which already exists in the trade. In any case, therefore, it would appear that the Government must see its way to a modification in the existing control, otherwise the position can only result in the shifting of the London quinine market abroad. Apart, however, from the above considerations the amount of quinine sulphate required for home consumption in this country is infinitesimally small compared with the amount required for handling by the export trade.

"On the assumption that it is a decided policy of the Government to do all it can to encourage export trade, what alternative has the Government but to acquiesce in Dutch conditions of supply, if to refuse to do so would be not only to endanger the future of quinine supplies for home consumption in Great Britain, but to rob British trade of a valuable export commodity?"

#### INSECT POWDERS ADULTERATED

Recent investigations by the United States Department of Agriculture show that insect powders are often adulterated with powdered daisy flowers. However, the adulteration can ordinarily be determined definitely by microscopic examination. The presence of daisy flowers is indicated by fragments of the fruit tissues. Ordinarily the "ox-eye daisy," "field daisy," "white weed" or "marguerite," as it is often called, is used as an adulterant.

Mountaineers in some States gather and dry these weeds and deliver them to country storekeepers in exchange for merchandise. In turn, the storekeeper passes on the daisy flowers to drug dealers, who use the material in insect powders in order to cheapen them. This form of adulteration is carried on to a marked extent at present.



### PREPARING NEW IMPORT RULES

#### Depreciated Foreign Currency Brings Change in Consular Methods—Importer Will Pay Duty Upon Actual Value of Drugs and Similar Products, not the Normal Exchange Value of the Foreign Money

(Special to DRUG AND CHEMICAL MARKETS)

Washington, D. C., Nov. 3.—Following representations by importers that the present method of dealing with depreciated currency is so slow and unsatisfactory as materially to handicap foreign business, new regulations will shortly be approved by Secretary of the Treasury Glass, under which consular officers will be permitted to note on invoices the actual value of shipments, instead of the value in the coin of the country from which shipment is made.

Importers of drugs, toilet preparations and similar commodities from Europe, especially from Germany, where the depreciation of currency is very marked, will materially benefit from the new regulations. The present method was evolved in 1896 and, like many other commercial practices, was not sufficiently elastic to meet the greatly changed conditions which came about during the war and which now prevail.

Under the old regulations, the United States consul at the port of shipment is obliged to certify the value of the goods in the currency of the country from which it is being shipped, regardless of the fact that such currency may be greatly depreciated. Upon arrival of the goods in this country the importer is required to pay duties upon the value stated by the consul. He may then apply for a refund, if the depreciation exceeds a certain percentage, and eventually he is reimbursed for the excess duties paid, but there is usually a long wait for the money, and considerable extra bookkeeping, on the part of both the importer and the Government, is required.

The regulations now before the Secretary will permit the consul at the port of shipment to note on the invoice a comparison of the unit of currency in that country with United States money. Upon arrival of the goods at a domestic port, the importer will pay duty only upon the actual value. There will then be no need of making applications for refund, and both importer and Government will save considerable time and money.

How great this depreciation is in some countries is shown in the following table of values quoted by the Director of the Mint on Oct. 1:

Country	Monetary Unit	Value	Exchange Rate
Austria Hungary	Krone	20.26c	2.25c
Belgium	Franc	19.3c	11.5c
Denmark	Krone	28.8c	22c
France	Franc	19.3c	11.5c
Germany	Mark	23.82c	4.5c
Great Britain	Pound	\$4.8665	\$4.20
Greece	Drachma	19.3c	17c
Italy	Lira	19.3c	10.25c
Netherlands	Guilder	40.2c	37.5c
Norway	Krone	26.8c	23.25c
Portugal	Escudo	\$1.0805	About 50c
Roumania	Leu	19.3c	5.75c
Russia	Ruble	51.46c	No exchange
Serbia	Dinar	19.3c	7c
Spain	Peseta	19.3c	19c
Sweden	Krona	26.8c	24.5c
Switzerland	Franc	19.3c	18c
Turkey	Piaster	4.4c	About 1.5c

While in a few countries, notably Italy, it has been the practice for consuls to compare the money and give the percentage of depreciation on invoices, in other nations this has not been done and, in fact, the laws of Germany and France require that no account shall be taken of depreciation. Under the proposed regulations, invoices from Germany, for instance, will state that the mark has an exchange value of  $4\frac{1}{2}$  cents in United States money, instead of the pre-war rate of 23.28 cents.

Under this system, importers will be saved the necessity of paying four to five times the actual duties on imports from Germany, and then awaiting the unwinding of much red tape before securing reimbursement of the excess duties. There will be corresponding savings also on imports from other European countries, in practically all of which the currency has materially depreciated.

### THE WORLD'S CHANGED TRADE ROUTES

No country has been more deeply or advantageously affected than the United States by the changes wrought by the war in international trade routes, it is declared by Guy Emerson, vice-president of the National Bank of Commerce, writing on "America and the New World Trade Routes" in the November issue of "Commerce Monthly," the bank's magazine.

"The United States now stands in a definitely more favorable position in relation to international commerce than it did in 1914," Mr. Emerson says. "Our merchant fleet is the second largest in the world. The Panama Canal is now effecting changes in trade routes which are highly favorable both to our importers and exporters, and the unsettlement in methods of distribution during the war promises to emphasize the effect of this new waterway on the distribution of Asiatic products; while our position between the Pacific and Atlantic Oceans should serve to secure us our fair share of advantages from the more remote results of the conflict."

A number of countries whose goods reached us before the war only by trans-shipment from European ports now are trading with us by direct routes, Mr. Emerson points out. Our coal resources enable us to influence trade routes markedly, and should the increasing use of oil as fuel for ships cause coal to cease to be a dominant factor, our present position as producer of two-thirds of the world's petroleum will give us the same advantage. Mr. Emerson says:

"It seems probable that the most far-reaching effect of the war on ocean transportation will result from the destruction of steamship tonnage which took place, and the consequent changes in the relative position of the chief ship-owning and operating nations. At its beginning, the United Kingdom owned 41.6 per cent of the world's sea-going tonnage and the United States 4.5 per cent. Now the United Kingdom owns 34.3 per cent and the United States 20.4 of the sea-going tonnage.

"Conditions of competition over the two ocean trunk lines next in importance to the North Atlantic route are being greatly affected by the Panama Canal. The first of these routes is that to India, China and adjacent territories of the Middle East. A large competitive area as between the Panama and Suez routes has developed, and while the bulk of eastern North American tonnage will go via Panama, and the larger share of European traffic via Suez, a considerable re-adjustment, depending on many conditions, will probably take place in the next few years. The same is true of the second of these routes, that from eastern North America and western Europe to Australia and New Zealand."

# Arbitration in the Chemical Industry

## *System Adapted to Trade Conditions Here Would Maintain Harmonious Relations Among Manufacturers, Jobbers and Consumers*

By JOHN F. QUEENY, Monsanto Chemical Works, St. Louis, Mo.

THE rules of the British Chemical Trade Association, published under the caption "Standardized Sales and Arbitration," in your recent publication called attention to a matter of increasing importance to the trade in America. The growing complexity of commercial relations throughout the country in all trades and industries, generally and particularly the substantial growth of the chemical industry in recent years, calls for the best thought and most efficient methods in developing and maintaining harmonious trade relations between the manufacturers, jobbers and consumers in the country.

There is no question that our present system of adjusting differences and controversies by resorting to long drawn out and acrimonious litigation in the courts is, to say the least, generally unsatisfactory to all parties concerned. Conflicting laws and decisions throughout the various states injecting too many uncertainties into transactions; delays which frequently postpone the controversy to a time when all benefit to the prevailing party has been lost and the ever present expense of litigation, which both deprives the winner of a substantial part of his just award and at the same time burdens the loser with a heavy penalty, all run counter to sound and efficient business methods and leave an aftermath of resentment and antagonism between parties which may continue long after the particular controversy has been concluded. The development of the chemical industry, especially at this time, requires co-operation and concerted effort on the part of the trade, and a medium through which differences may be adjusted promptly, fairly and with as little expense and ill feeling as possible, will go a long way to obtain such results.

If the present system is inadequate and unsatisfactory, some such plan as the Standardized Sales and Arbitration which has proven eminently satisfactory in other countries can and should be worked out with the necessary changes to adapt it to laws and trade conditions existing in this country. Some of the rules adopted by the British Association governing sales would probably be impracticable, then again existing laws in some states would retard or prevent their operation, but a definition in certain language of the various trade terms, the meaning of which would be clear to the understanding of buyer and seller alike, would in itself do much to eliminate controversies and to promote pleasant and harmonious business relations between them. The buyer in Missouri and the seller in New York would no longer be in doubt as to the possible meaning of his contract in the one state or the other, or be put to the trouble or expense of obtaining legal counsel as to what his rights are or should have been.

Compulsory arbitration will probably meet with greater objections and greater legal difficulties since, as I understand it, in some states agreements for arbitration are not enforceable and do not even bar law suits before or during the time for arbitrations. Again, such agreements, unless made a part of the sale, would not be effective—even if sanctioned by law—between non-members of the Trade Association or between a member and a non-member. However, these and other obstacles can, by intelligent consideration, be met by the enactment of necessary legislation and the formulating of proper rules and procedure governing the same.

The effect of its adoption would not oust the courts from the administration of justice or deprive any individual of his rights, but on the contrary, would be an aid to the courts of the country. It might even be advisable to make such arbitration subject to final review by the courts, on questions involving only the construction or meaning of the law applicable to the case. Instead of complicating the work of the courts, a sound plan of arbitration should result in the prompt and inexpensive settlement of differences and controversies in conformity with law and good business, through the efforts of men (acting as arbitrators) thoroughly experienced and trained in the particular business, and far better qualified to hear and understand such questions than the average juror or perhaps even an average judge.

The foregoing conclusion has been reached after only a hasty consideration of the subject, and perhaps substantial objections might be raised on closer study and thorough examination. However, on principle, uniformity of contracts and arbitration seems sound and logical and in accord with ideas of good business. The matter is one which merits both careful consideration and definite action by the trade.

S. J. C. Mason, of the Fabra Co., Ltd., London, and Honorary Secretary of the British Chemical Trades Association, writes to DRUG & CHEMICAL MARKETS that the Association members use the "Conditions of Sale," a copy of which was published in our issue of Oct. 1, to attach to contracts, and that "not one single case of dispute has arisen where these conditions have been used." Mr. Mason says that a case was referred to the British Chemical Trades Association from the Courts of Justice for arbitration. An umpire was appointed and the case was settled under the Rules of Arbitration.

In addition to the obvious purposes of the Association, which is open equally to manufacturers, merchants, agents, importers, exporters and consumers on payment of fees of £5 5s and annual dues of £5 5s, the work of the Association is amplified to cover the following points:

Render assistance to the various Government Departments dealing with chemical and allied products and to form a medium for placing before the Government the views of the chemical trade upon matters affecting joint interests.

Develop the British chemical and allied trades and to foster British production.

Further the interests of the British exporter of chemicals and allied products and to assist him to strengthen and maintain his hold upon markets which in pre-war days were so largely a monopoly of Germany.

Regulate contracts so as to afford protection to the consumer whilst at the same time affording equitable safeguards to the manufacturer and to the merchant.

Act as arbitrator and to appoint arbitrators to act in the settlement of disputes arising out of transactions connected with the chemical and allied trades and generally to arrange and maintain a regular and ordered system of arbitrations.

Institute, support, promote or oppose legislative or other measures or proceedings affecting the interests of the chemical and allied trades.

Organize joint action where a number so desire in

support of their mutual interests and in matters affecting the interests of the trade as a whole.

With the object of fostering friendly relations and promoting inter-dealings between the members, it has been arranged to open the Common Room at the Offices of the Association at 80 Fenchurch Street, London, for the use of members from 3 to 4 p.m. on Monday and Thursday afternoons each week. A notice board is provided and specific enquiries and offers are posted thereon under reference numbers, the name of the member offering or enquiring being furnished by the Clerk to interested parties on demand.

### SCHIEFFELIN SCORES POINT IN HYLAN SUIT

William Jay Schieffelin, of Schieffelin & Co., who is also head of the Citizens Union, has won a point in his suit for \$100,000 for libel against Mayor John F. Hylan because of a letter by Mayor Hylan to Health Commissioner Copeland on April 15, last, making accusations against Mr. Schieffelin, as head of the wholesale drug firm of Schieffelin & Co., concerning the sale of narcotics to drug stores that were violating the anti-drug laws. The letter branded the Schieffelin firm as one of the agencies through which drug addicts were able to get their supply, and pointed out the effect of narcotics on crime.

Mr. Schieffelin's attorney contended that many of the defenses were irrelevant and immaterial, and asked Justice Lehman, of the Supreme Court, to strike them out, in order to limit the issues to be presented when the case comes to trial. The Court heard argument a month ago, and gave a decision last week, which the plaintiff's attorneys look upon as an important victory. The Corporation Counsel, as attorney for the Mayor, will appeal to the Appellate Division, and if the ruling is upheld, the Mayor's pleas of justification and privilege will be materially reduced.

Justice Lehman says the Mayor alleges that he has at all times endeavored to perform his public duty "without fear or favor," and for that reason wrote the letter complained of. The Court says that the question is whether the letter complained of was written by the Mayor pursuant to his public duty, "and it is quite immaterial whether or not at other times the defendant has performed his duties."

Mayor Hylan set up five separate defenses in his answer. He alleged justification. His fifth defense, in which he claimed privilege under the penal law to publish his communication, was eradicated in its entirety by Justice Lehman.

Justice Lehman permitted to remain in the Hylan answer an exhibit showing the list of sales of narcotics by drug stores which, it is alleged, bought from Schieffelin & Co., and a list of convicted addicts who bought from these stores. The justice ruled that this list may bear on Mayor Hylan's claim of justification.

The General Alcohol Export Corporation, with a New York office at 60 Wall Street, has been formed to do an export business in alcohol under the Webb-Pomerene act. The organizers are: William F. Wolfner, Peoria, Ill.; Frederick N. Harrison, 27 William Street, New York; William A. Cornell, 60 Wall Street, New York; Lester I. Bacharach; Julius Kessler, 27 William Street, New York; Everett W. Wilson, Pekin, Ill.; Philip Publicker and Harry Publicker, Philadelphia, and Frank H. Delaney.

The Dells Chemical Co., Providence, R. I., has filed notice of organization to operate at 41 Felix Street for the production of chemicals. Earl O. Swindells heads the company.

### PHOSPHATES IN DEMAND ABROAD

**W. D. Huntington, of the Davison Chemical Co., Finds Requirements Far Greater than the Supply —Baltimore Company to Take Important Part in Export Trade**

(Special to DRUG AND CHEMICAL MARKETS)

Baltimore, Nov. 3.—W. D. Huntington, vice-president of the Davison Chemical Company, who got back from Europe last week after a trip of about three months, talked interestingly of his experiences abroad and summarized the impressions he had gained in the course of his travels. He went primarily to establish agencies for the distribution of the products of his company in the different countries, and this object he accomplished. Another purpose of his journey, however, was to study conditions abroad so that he might be in a position to aid in the expansion of relations as far as the export and import trade of Baltimore is concerned. He visited England, France, Holland, Belgium, Norway, Sweden, Denmark, Finland, Italy and Spain.

Everywhere he found that a friendly attitude toward the United States prevailed, and that there was a willingness to bring about closer commercial relations with American merchants and manufacturers, though he was also impressed with the formidable nature of the handicap imposed by the low rate of exchange. This would have to be corrected by a readjustment of the trade balance, he said.

Mr. Huntington studied the situation as related to the distribution of superphosphates, and what he learned strengthened him in the belief that a world shortage in the material exists, and that the demand for the product is certain to exceed the available supply. One important need in the development of exports of superphosphates was ships, the tonnage to be obtained now being wholly inadequate.

Mr. Huntington expressed the belief that among all of the European countries which have suffered through the war Belgium would be the first to recover, because he found the will to work among the population there far stronger than anywhere else.

"You cannot help but be impressed with the attitude of the working classes," he said. "They are doing real work, and are not counting the hours during which they labor. I walked about the streets of the cities of Belgium and found laborers on the job as late as 9 o'clock at night, and they were going about their work with enthusiasm. The same thing applies to the plans of the manufacturers to reconstruct their plants, which were either partially or wholly destroyed by the Germans. Going about the country you see that a plant partially or wholly destroyed has been replaced by a temporary establishment. The Belgians realize the importance of getting an early start in restoring their industries, and temporary plants can later be supplanted by more permanent ones."

It is the plan of the Davison Company to take an important part in the export trade, the officials of the company believing that Europe will need large quantities of materials that enter into the composition of fertilizers, and that a remunerative business can be built up. An excellent beginning has already been made with the shipment of acid phosphate, and the prospects for this division of commerce are considered very promising.

### NUYENS & CO. TO MAKE CHEMICALS

Nuyens & Co., manufacturers of cordials, 546 Greenwich Street, New York, with headquarters at Bordeaux, France, have purchased an interest in the Pharma-Chemical Co., Bayonne, N. J., and will make medicinal chemicals on a large scale, and will probably put out a line of specialties.



## WHOLESALE DRUGGISTS DISCUSS NEW LEGISLATION AND COURT DECISIONS

### Large Attendance Marks Annual Convention at New Orleans—Saunders Norvell Reports on Selling Methods and R. H. Bradley on Price Maintenance (Special to DRUG AND CHEMICAL MARKETS)

New Orleans, La., Nov. 4.—When all delegates to the annual convention of the National Wholesale Druggists' Association are registered it is believed the attendance will prove to be greater than at any previous convention of the association. The Hotel Grunewald is overflowing with members who have been arriving by trainloads since Sunday afternoon. Among the first delegates to reach here were those from New York, including representatives of McKesson & Robbins, Lehn & Fink, Schieffelin & Co. and other leading houses, who, with their families, filled four coaches. Secretary Francis E. Holliday and C. H. Waterbury, assistant secretary, were early at the headquarters in the Grunewald, arranging committee meetings, and finding quarters for delegates who neglected to reserve accommodations in advance.

The programme prepared by the local committee with the co-operation of Arthur D. Parker, president of the association, indicates that the report of the Committee on Legislation will be the most important in years, owing to the legislation passed at Washington and in many States affecting the wholesale drug trade. R. H. Bradley, chairman of the Committee on Proprietaries, has prepared a report reviewing the court decisions in all price maintenance cases during the year, and the changes in prices and discounts. Saunders Norvell, of McKesson & Robbins, has filed a report as chairman of the Committee on Commercial Travelers' and Selling Methods which will interest the trade to an unusual degree because of the original ideas suggested and the emphatic language in which they are expressed.

Mr. Norvell discussed among other things the loyalty of salesmen as a class during the last few years. He said many of the men had willingly accepted assignment to such duties as packing and billing goods at the head office at a time when it was difficult to fill orders because of labor disturbances. He recommended the commission plan of compensating salesmen as more satisfactory than salary and expense. This recommendation was made on the basis of an experience which indicated that the salesman increased his own income and the house sold more goods.

Speakers at the session held this afternoon demanded the immediate repeal of the 1918 stamp tax on proprietary medicines. The tax was enacted as a substitute for the two per cent excise tax on sales by the manufacturer and requires one cent from the consumer on every 25 cents worth of goods sold. The matter was referred to the Board of Control, which is expected to place the association on record for the repeal of the stamp tax law.

Compulsory health insurance, to be paid for equally by the employer and employee, was advocated by H. P. Robinson, chairman of the Employers' Liability Committee. He pointed to the great economic losses caused the industry as well as the suffering of the employee and his family in many cases as a result of physical disability of so many employees in the United States, which he said could be effectually avoided by a compulsory system of insurance.

Universal adoption of trade acceptances was urged

by Robert R. Ellis, Memphis, chairman of the Trade Acceptance Committee, as essential to provide wholesale druggists with the necessary credit safeguards. While admitting the banks of the nation have done much to make their use as extensive as they are, he scored them for not exerting themselves more for the benefit not only of the druggists, the purchasers and the public in general, but a direct benefit of the banks, also.

Saunders Norvell, chairman of the Board of Directors of McKesson & Robbins, said men no longer consider the use of cosmetics effeminate, but look upon it as desirable and necessary in the interests of cleanliness and personal appearance. Powder often, he pointed out, would conceal whiskers and thus save a shave.

Figures detailing the comparative increase in the prices of drugs and everything used in distributing them were submitted in a report of G. Barret Moxley, of Indianapolis, Ind., chairman of the committee appointed to investigate the increased cost of distribution. According to the report, the expenses of the wholesaler have by far outgrown his margin of profit and his prosperity achieved during the war was the result solely of the vastness of his business with the Government, with foreign countries and to people at home who bought more drugs, as they did everything else, than ever before.

The past has been an unusually good year for paints, declared Levi Wilcox, Waterbury, Conn., chairman of the Committee on Paints, Oils and Glass, and paint merchants have reaped a good profit.

President Parker in his address touched upon the relation between present overhead costs of doing a jobbing business and the rate of discount allowed by manufacturers of proprietary articles for distribution of such merchandise. It is impossible for wholesalers to continue to meet increasing wage and salary scales, besides advanced costs of every other item entering into the packing, transporting and distribution of merchandise on the terms of purchase that prevailed ten years ago.

President Parker also referred to the absolute necessity for an awakened public opinion to combat the efforts of certain propagandists against self-medication. Bills have been introduced in many State legislatures, he said, and even in Congress, with the apparent purpose of destroying an important industry. The point made by President Parker was that no class should attempt to dictate a set of standards for any other class, especially when that class had no standards for itself.

## HELLENIC COMPANY IN BANKRUPTCY

The Hellenic Chemical & Color Company, Inc., manufacturing and selling dyes at No. 1 Cedar Street and 240 Broadway, has filed a petition in bankruptcy, with liabilities of \$40,531 and assets of \$13,041, consisting of cash, \$1; stock, \$1,864; machinery, tools, etc., \$1,879; accounts due, \$7,446; unliquidated claims, \$1,806; deposits of money, \$11, and equity in outstanding accounts, assigned to Wormser & Co., \$1,030.

The company owns stock in the Castle Color & Chemical Co., Inc., value unknown; 200 shares at \$10 per share in Color Co. of America, value unknown, and 250 shares at \$10 per share in Domestic Buyers' Corp., value unknown. Among large creditors are North American Mercantile Co., San Francisco, \$9,000; Dill-Crossett, Inc., San Francisco, \$1,750; Merchants' Chemical Co., Chicago, \$2,027, and Gillespie Bros & Co., \$4,471.

### MANAGEMENT OF THE DYE HOUSE

#### English Writer Discusses the Duties of the Foreman Dyer, the Chemist and the Engineer—How Machinery Should be Planned from the Dyer's Point of View

The foreman dyer superintends the dyeing operations. He gets the goods on shade (D.V.), looks after the machinery and the bulk work. He is not yet looked on as a specialist chemist. The technical chemist is either engaged in making chemicals or in laboratory work. If a man in a dyehouse is particularly described as a chemist, he will have a laboratory and will work among test tubes, in the opinion of C. Grosvenor, writing on "The Works Chemist and the Engineer" in the "London Dyer and Calico Printer."

The dyehouse engineer is often a mere mechanic whose duty is to keep the place in good repair. Generally, also, the boilers will be under his supervision. In routine work, the dyer and the engineer will not have much to do with each other, in the sense of collaborating in their work. They will do their work without much need to consult between themselves. In research work, however, in improving machinery and methods, there will have to be some joint work. Of which, more later. All dyehouse firms have some individual or other whose title fluctuates between "mechanic" and "engineer." Some, but not all firms, have also a chemist. The relations between these and the foreman dyer are generally very ill defined, and it is the purpose of this article to be a contribution to the subject of how these relations should be arranged.

In a small concern, the foreman dyer will have to be his own chemist and do his own laboratory work himself—except such of it as he can get the color-makers to do. But this latter alternative is not good policy to follow.

When designing new machinery the first essential is to know exactly what the machinery will be required to do. If the machinery is for dyeing, nobody knows what is required as well as the dyer. Certainly *not* the mechanic. The mechanic's place, therefore, is simply to carry out the dyer's ideas.

We fancy most dyehouse machinery falls short of what it might and ought to be if it were to be designed by an expert dyer, with an expert engineer to carry out his ideas. It may be said that a fair proportion of a dyer's troubles consist in making engineers' machinery "do." A machine's sphere of usefulness is often seriously curtailed because of small faults in construction and material—faults which consultation with a dyer would have prevented. For instance, an engineer is likely to use iron in cases where wood might be preferable. The engineer may not be aware of this. To him iron is his native element, so to speak. He is more familiar with it than anything else. His lack of knowledge may prevent his machine being used for any acid shades. The machine's sphere of usefulness may therefore be curtailed 50 per cent.

### NEW COTTONSEED OIL MILL

Construction of a crude oil mill, designed to be one of the largest in the South, has been begun by the Union Seed & Fertilizer Co., of Memphis, Tenn. The initial outlay will be approximately \$500,000, according to the "Manufacturers Record."

The new buildings are to house only the best and most modern equipment, and for the present will be used only for the making of oil from cottonseed, although it is learned that the company is to locate its general analytical laboratory there, and will have the largest and most complete chemical plant of any mill in the South.

Glycerin will be made from fats, and oils will be crushed from peanuts, soya, castor and other beans.

### LABEL FOR DENATURED ALCOHOL

The following Treasury decision is of importance to wholesale and retail druggists as it amends existing regulations governing the labeling of containers of completely denatured alcohol:

(T. D. 2914.)

### DENATURED ALCOHOL.

Additional matter to be printed on labels affixed to wholesale or retail packages of completely denatured alcohol.

### TREASURY DEPARTMENT

Office of Commissioner of Internal Revenue,

Washington, D. C.

To Internal Revenue Officers and others concerned:

In view of the grave and extended abuses of the use of completely denatured alcohol reported, it is deemed necessary to print upon the labels affixed to wholesale and retail packages a further and more specific warning as to its use than is shown on the present required label.

In addition to the present matter on the labels there will be required on all new labels hereafter the printing in large letters in red ink under the skull-and-bones symbol the word "Poison" and at the bottom of the label there will be printed the following statement:

Completely denatured alcohol is a violent poison.

It cannot be applied externally to human or animal tissue without seriously injurious results. It cannot be taken internally without inducing blindness and general physical decay, ultimately resulting in death.

Until the present stocks of labels are exhausted this additional matter may be affixed to the containers on a separate label pasted above the present required label.

J. H. CALLAN,

Acting Commissioner of Internal Revenue.

Approved August 30, 1919:

CARTER GLASS,

Secretary of the Treasury.

### PROHIBITION RULES FOR MANUFACTURERS

Under the terms of the Volstead measure to enforce war-time as well as constitutional prohibition, manufacturers will continue to be required to procure from the Commissioner of Internal Revenue permits to make goods containing alcohol, and will supply with their applications data similar to that now furnished under T. D. 2788.

Should it appear that any alcoholic preparation for the manufacture of which a permit has been granted is used for beverage purposes, the Commissioner of Internal Revenue may summon the manufacturer thereof and direct him to show cause why the article should not be listed as an intoxicating liquor and its manufacture prohibited, says F. E. Holliday, secretary of the National Wholesale Druggists' Association. The producer of such preparation will then be permitted to present evidence in his own behalf, and in the event of an adverse ruling by the commissioner may appeal to the courts to prevent the listing of his product.

It is assumed that sporadic instances of attempts to use legitimate alcoholic preparations for beverage purposes will not furnish grounds for listing such goods and that as our preparations are in fact "unfit for beverage purposes," they will be permitted to be made notwithstanding the fact that they may have been consumed as beverages by some degenerate, determined to satisfy an abnormal appetite.



## Trade Notes and Personals

George Frank Lord has resigned as advertising director of E. I. Du Pont de Nemours & Co., Wilmington, Del.

Prof. Alexander Smith, director of the Columbia chemistry department, is recovering after an operation at Roosevelt Hospital for ulcer of the stomach.

Japan's importations of caustic soda and soda ash from the United States during the seven months ended with July amounted to 24,910,721 kin, against 36,504,921 kin in the same time last year and 35,247,274 kin two years ago.

The United States Shipping Board's steamship Brasher of 3,658 tons, operated by W. R. Grace & Co., has arrived at Ghent, Belgium, with a cargo of nitrate. The steamship, which came through the Panama Canal, is the first steamship to arrive from Chile, resuming the fertilizer trade.

According to figures given out by the Bureau of Customs, San Francisco has come to the front as a leading port for bunkering ships with fuel oil, which is rapidly supplanting coal on the Pacific. During the first nine months of the present year 1,459,802 barrels of 42 gallons were taken on by vessels for fuel purposes.

Charles H. MacDowell, president of the Armour Fertilizer Works, Chicago, has been made a member of the Legion d'Honneur of the French Government in appreciation of his services as director of the chemical division of the United States War Industries Board and as a member of the economic section of the American Mission to Negotiate Peace. He served as a "dollar a year" man on the chemical division during the war.

Arthur J. Mullaly has sued the Palatine Aniline and Chemical Co. for \$5,000 in the Supreme Court, through Nathan Friedman, for labor and services from May 1 to Oct. 1, 1918. The company in its answer alleges that Mullaly's services were performed as part of his duties as president and director, and that he received \$1,800 to cover expenses of organizing the company. Lowenthal and Hirsch appear for the Palatine company.

A suit to recover \$270,000 has been begun in the Federal Court by Philip Kobbe and four other stockholders of the Allied Industries and French-American Constructive Corporations against Alfred I. du Pont. The complaint alleges that in April, 1919, the stock and assets of the Allied Corporations were taken over by the Nemours Trading Company, which Mr. du Pont controlled, and that the property of the former thereupon ceased to be of any value.

Frederick W. Steingrube, of Cincinnati, Carl L. Fink, of New York, and Frank M. Sells, of Kansas City, have been officially accepted as members of the Board of Directors of the Procter and Gamble Company. They were elected by employees of the company's plant at Cincinnati, Kansas City and New York, to represent the employees on the board of directors, in conformity with the co-operative idea launched by President William C. Procter. Other members of the board chosen at a recent meeting are Albert Edward Anderson, John J. Burchenal, H. G. French, J. M. Gamble, Wallace E. McCaw, William Cooper Procter, William Procter and William S. Rowe.

## HOW TO OBTAIN GERMAN VAT DYES

### Textile Alliance, Inc., Announces Conditions Under Which Consumers Will be Supplied—Acting as Sole Agency for War Trade Board—Forms to be Used

The Textile Alliance, Inc., 45 East Seventeenth Street, New York, designated by the War Trade Board Section of the Department of State, to receive estimates by dye consumers regarding their needs for six months from Oct. 15, announces that it will perform the following services in connection with the importation of vat dyes:

(a) To accept from the consumer vat dye certificates issued by the War Trade Board for vat dyes in amounts not exceeding the amounts specified in such certificates.

(b) To file all applications for licenses for vat dyes secured through this source and covered by such allocation certificates as have been endorsed to the Textile Alliance, Inc.

(c) To attend to all the details connected with the acquisition of and terms of payment for the above mentioned vat dyes and their shipment to the Textile Alliance, Inc., and to arrange for distribution to the respective consumers who have ordered them through this source.

Under this section the Textile Alliance explains the proceedings on the part of the consumers as follows:

(a) The consumer indorses and delivers allocation certificates to the Textile Alliance, Inc., at the same time executing and forwarding the order (Form No. D-1) stating the amount of dyes (not exceeding, however, the amount allocated to him) which he desires to purchase under this arrangement).

(b) On receipt of the above an application for an import license will be filed by the Textile Alliance, Inc., with the War Trade Board.

(c) At the same time a pro forma invoice will be rendered to the consumer, same to be based on figures available at that time representing approximately the cost (including all charges incidental to complete delivery on a c. i. f. New York basis) of the dyes so ordered. A check (New York funds) in favor of the Textile Alliance, Inc., for the amount of the pro forma invoice must be sent to this office immediately. On receipt of same the order will be cabled to the representative of the Textile Alliance, Inc., in Paris, who will proceed with the purchase.

(d) In the event that it should prove impossible to secure the entire amount of the various dyes applied for, it is understood that the Textile Alliance, Inc., shall be entitled to procure for and deliver to each certificate holder his pro rata share of the total amount obtainable.

(e) On arrival of the merchandise, invoice will be rendered showing the charges so far as then ascertained, and settlement must be made at that time subject to correction.

The Textile Alliance then stipulates:

The purchase, importation and distribution of all vat dyes acquired under the above mentioned plan will be effected at cost and without profit to the Textile Alliance, Inc. To meet the estimated expenses of this organization in conducting this work a charge of 15 per cent will be made upon the amount of each purchase, computed upon the delivered cost including duty. Any unexpected balance of the funds remitted for the expenses of the Textile Alliance, Inc., will be returned pro rata.

All purchasers ordering vat dyes under this plan must indemnify and agree to hold harmless the Textile Alliance, Inc., and its officers, agents and employees from any and all claims or liabilities arising in connection with any importations, sales or deliveries of the vat dyes covered by this bulletin. Importations after arrival will be at owners risk and expense.

### UNION DYE & CHEMICAL CO. ELECTS NEW PRESIDENT AND MAY REORGANIZE

**B. R. Armour, of American Aniline Products, Inc., Said to Have Assumed Executive Charge—Announcement from Kingsport a Complete Surprise in Offices of Ralph L. Fuller & Co., Selling Agents (Special to DRUG AND CHEMICAL MARKETS)**

Kingsport, Tenn., Nov. 3.—B. R. Armour, president of the American Aniline Products, Inc., 80 Fifth Avenue, New York, has been elected president of the Union Dye and Chemical Co., 81 Fulton Street, New York, according to an announcement made by J. F. White, manager of the Kingsport plant.

The company took over the assets of the Federal Dyestuff and Chemical Co. after the Federal went into receivers' hands and continued to manufacture the intermediates which the Federal was making. The Union Dye and Chemical Co. was awarded a Government war contract which was carried out at great expense, absorbing the company's liquid assets, while payments from the Government were delayed, and in June, 1919, the plant at Kingsport stopped production pending a settlement. Announcement was made at the time that the plant would resume operations as soon as payments were received from the Government. A settlement was effected, but production has not been resumed. There were considerable quantities of various materials on hand, and sales of these products have continued through Ralph L. Fuller & Co., New York.

Chester A. Jayne, president of the Union Dye and Chemical Co., who has offices with Ralph L. Fuller & Co., 81 Fulton Street, denied the truth of the report that B. R. Armour, of American Aniline Products, Inc., had been elected president of the Union Dye and Chemical Co. He said he could not discuss the situation at present, but would make a statement later.

There have been persistent rumors that the Union Dye and Chemical Co. was to be reorganized and new capital invested. The Union Dye and Chemical Co. was organized with Everly M. Davis, president; Samuel Armstrong, treasurer; and H. Starr Giddings, secretary, and the offices occupied by the Federal Dyestuff and Chemical Co., 2 Rector Street, were taken over. Later, Mr. Davis resigned to enter business for himself at 61 Broadway, and Mr. Jayne was elected president. The company had no selling organization, and Ralph L. Fuller & Co., then at 2 Rector Street, acted as agents for the company. Early this year Ralph L. Fuller & Co. moved to 81 Fulton Street, and the Union Dye and Chemical Co. has offices on the same floor at that number.

The announcement from Kingsport was a complete surprise to members of Ralph L. Fuller & Co. It was said that the report, if true, meant the reorganization of the Union Dye & Chemical Co. The firm is selling products on hand at the Kingsport plant, but it was said that production had not yet been resumed.

### NITRATE PLANT TO BE ENLARGED

Washington, Nov. 3.—An additional appropriation of \$12,000,000 to enlarge the Mussel Shoals, Alabama, nitrate plant and equip it for extensive production of nitrate for use as fertilizer during peace time has been recommended to Congress by Secretary Baker.

A bill to carry out the recommendation was drawn by Chairman Kahn, of the House Military Affairs Committee, and action on it will be sought at the present session.

### FOREIGN TRADE SITUATION DISCUSSED

The National Foreign Trade Council discussed foreign credits at the Hotel Biltmore last week. James A. Farrell, president of the United States Steel Corporation and chairman of the Council, said the country must awake to the responsibility of being a creditor nation. The supply at home, he said, was greater than the increased consumption, and the solution of the problem lay in foreign investments.

Willis H. Booth, vice-president of the Guaranty Trust Company, expressed the hope that the manufacturing interests of the country would take advantage of the opportunities about to be created by the passage of the Edge bill. He said that the resources of the banks were already fully occupied, and that a large part of the capital stock of Edge bill corporations would have to be absorbed by manufacturers, who must help themselves by participating in the extension of necessary credits.

R. P. Tinsley, vice-president of the American International Corporation, agreed that the banks could not extend any more credit by themselves and pointed out the inability of the Government to loan gold to foreign nations as a basis for credit, as the gold reserve of the Federal Reserve system was near the minimum. He disparaged, however, the idea that American manufacturers should load themselves up with long-term credits through finance corporations or otherwise, which the banks could not accept in the course of their regular business.

Henry Howard, vice-president of the Merrimac Chemical Co., pointed out the need for new laws permitting American consular officers to certify deeds and depositions without the presence of the deponent. Lack of such authority has forced Americans abroad to travel great distances to get such certificates.

### INCREASE IN IMPORTS

Demands in the United States for manufacturing materials and foodstuffs are the principal causes of the large increase in importations. The trade figures for the nine months ending with September, says a statement by the National City Bank of New York, indicate that the total value of our imports in the calendar year 1919 may reach nearly \$4,000,000,000 as against less than \$2,000,000,000 in 1913. Practically all of this increase occurs in manufacturing materials and foodstuffs. Manufactures show a fall off of about \$75,000,000, while manufacturing material shows an increase of approximately \$140,000,000, and foodstuffs an increase of over \$150,000,000.

Sugar importations, despite the shortage at present, show large gains in quantity and a tremendous increase in value, the quantity imported from foreign countries and our islands aggregating in the eight months ending with August, 1919, 6,688,000,000 pounds against 5,536,000,000 in the same months of last year and the value \$391,000,000 as against \$275,000,000 in the corresponding months of last year. The average import price of sugar from foreign countries in the month of August, 1919, was five and sixty-four one-hundredths cents per pound as against four and seventy-five one-hundredths cents per pound in August of last year, these figures being the valuation of raw sugar in the country from which imported. Fresh meats show an importation of 25,000,000 pounds against less than 9,000,000 in the same months of last year; olive oil, \$12,836,000 in the eight months of 1919 against \$303,000 in the same months of last year.

George W. LaCour, formerly sales manager, department of sales to jobbers and manufacturers, of McKesson & Robbins, Inc., now is associated with Charles L. Huisking, Inc., 5 Platt Street, New York.

**PFADLER CO. RECOVERS GERMAN PLANT***(Special to DRUG AND CHEMICAL MARKETS)*

Rochester, N. Y., Nov. 3.—The annual meeting of the stockholders of the Pfadler Company was held at the plant in Lincoln Park last Tuesday. The old board of directors was re-elected. The members are W. C. Markham, Edward G. Miner, N. G. Williams, W. D. Pheteplice, Robert Raulet, C. F. Stothers and H. W. Dakin. The report of the chairman of the board, Mr. Markham, showed that, notwithstanding changing conditions, due to industrial unrest, high cost of materials and the sudden changing from war supplies to peace-time products, business had shown good returns.

It was also noted that the foreign trade had been seriously interfered with by the high rates of ocean freight and the low rates of exchange. President Miner and Vice-President Pheteplice had visited England, in which country there was organized several years ago a subsidiary company, and became convinced that a manufacturing establishment there was a necessity, and it is now being erected. It will probably be in operation in the autumn of 1920.

The chairman's report also showed that the Pfadler works in Germany which are located at Schwetzingen, Baden, and had been profitably operated for two years before the war were seized by the military authorities when the United States entered the war, the machinery and raw materials stolen and the plant turned into a munitions factory. Later it was used as a storehouse for machinery stolen from Belgium and France. After the signing of the armistice the military authorities were obliged to withdraw as the place was in the prohibitive zone on the east bank of the Rhine, and the civil courts appointed a receiver, under whose administration the German government has repaired the building, which the soldiers badly damaged before quitting, and are now at work restoring the immense quantity of stolen machinery and sending it back to France and Belgium, as provided for in the Treaty. The man who had charge of the works under the Pfadler control is still in charge under the German receivership, and he sent over a large number of excellent photographs, showing the destruction wrought by the military arm before retiring. In the meantime the Pfadler Company has filed claims with the state department at Washington for the loss of their property.

**SUIT OVER WASTE FOR POTASH SALTS**

The Western Industries Company has filed a suit at San Francisco against the Mason Malt Whiskey Distilling Company for \$1,043,998 for breach of contract. The latter concern operates a distillery near Sausalito, Cal., and its chief business is the production of alcohol from molasses that is brought in tank steamers from Hawaii. It was formerly the custom to pour into the bay the liquid left after the alcohol had been taken from the fermented molasses, but on Nov. 10, 1916, a contract was made whereby the Western Industries Company, which operates a factory near San Jose, Cal., purchased this waste and began evaporating or "burning" it to obtain potash salts, the liquid being taken to San Jose in tank cars. More than 73,000 gallons a day was to be handled in this way, according to the contract.

The Western Industries Company claims that the Mason Malt Whiskey Distilling Company broke this contract in March, 1918, so that it could "burn" the liquid and acquire the potash salts for itself, causing the Western company to lose a profit of \$2 a ton. The Mason company contends that the Western company did not properly renew its contract and that it was impossible after March, 1918, because of war conditions, to continue transportation.

**POTASH MINES IN ALSACE****Shafts are Made Watertight by Lining Them with Cement or Sheet-Iron Casings—How the Mineral is Treated in Refinery**

The Alsatian potash mines, which, with the exception of those found in Germany and known as the Stassfurt potash deposits, are the only ones of any consequence in the world, are situated in the region of Mulhouse, Cernay, and Soultz. The potash deposits are in two strata. The lower layer is the more important, and is of an average thickness of from 12 to 16 feet. Above the upper stratum is a layer of rock salt, intermingled with clay and shale, and between the two strata the same materials are to be found. These hard layers of clay and shale are of considerable value, as they form hard and watertight roofs for the workings or saps.

The mining of the potash salts is a comparatively simple operation; the most difficult part is the sinking of the shaft, as it is imperative that no water should enter the mines, says the London "Chemical Age." It is consequently necessary to line the shafts with cement or sheet-iron casings, in order to render them watertight. It is absolutely essential that water should be kept out of the mines, otherwise they may be ruined owing to the very soluble nature of the salts.

The shafts are sunk to a depth of from 1,500 to 3,000 feet, according to the position of the potash beds. From the bottom of the shaft, galleries are pushed right through the strata, and these form the main arteries of the mines, along which trolley lines are run, and electric cables are laid to supply power for the workings. The saps branch off from the main gallery, and here the potash is worked. Each sap or working produces about 50 tons of salts per day. Thus mines having five saps working simultaneously produce 250 tons of potash salts per day.

The mineral passes through the crushers, and is made into fine powdered or coarse granular material as is required.

The salts which are to be refined are conveyed to the refining or concentrating factories by means of a belt conveyor. At the refining factory the powdered mineral, which is usually the 20 per cent salt, is tipped into a tank containing a hot saturated solution of common salt. The temperature in the solution tank is maintained by steam-heated coils. From these tanks this solution is run into crystallising vats. The insoluble matter and the sodium chloride settle to the bottom, and the chloride of potash crystallises in the upper part of the vat. The remaining solution, which contains sodium chloride and small traces of magnesium salts which are found in potash salts, is returned to the solution tank.

Chloride of potash is raked out by hand on to a conveyor which carries it to the drying oven, and here it is dried and made ready for use by means of hot gases. At the present time 250 tons of this high-grade salt chloride of potash are being produced daily.

**SPANISH DUTY ON SERUMS**

Until recently customs duties in Spain have been levied on imported serums, put up in hermetically sealed tubes, under two classifications, namely, paragraph 247 of the customs tariff, which refers to medicaments for subcutaneous injections, and paragraph 528, which refers to apparatus for use in medicine, surgery and laboratories. Owing to the impracticability of separating the pharmaceutical product from the container, a royal order published on Sept. 10, 1918, authorizes that tubes containing serum, other medicaments, or vaccines of the Mulford or similar types, shall be dutiable as medicaments under the paragraph corresponding to their contents without reference to the container, which may be employed as a syringe, lance or needle for their application.



## Patents

Copies of patents may be obtained as follows: United States, 5 cents each; send to United States Patent Office, Washington, D. C.; French, one franc; send to M. M. Belin et Cie, 56 Rue des Francs-Bourgeois, Paris, for patents of the years 1902-1907, and to L'Imprimerie Nationale, 88 Rue Vieille du Temple, Paris, for patents of later date. German, one mark; send to Patent Office, Berlin. British, eight pence; send to Patent Office, London. Postage must be sent for British patents. Stamps are not accepted in payment for U. S. patents. In ordering patents, the number, name of patentee and subject of invention must be stated.

### Granted October 7, 1919

- 1,318,212—Henri Leroux, Paris, France, assignor to la Societe d'Eclairage Chauffage et Force Motrice, Siege social, Paris, France. Process for the production of high-percentage carbazole.
- 1,318,258—Teofron Boberg, London, England, assignor to Techno-Chemical Laboratories Limited, London, England. Method of making sodium ferro-cyanide.
- 1,318,266—Harlan Ashley Clifford and James Willard Cobb, Greenfield, Mass. Anesthetic-gasenser.
- 1,318,335—Elton R. Darling, Montclair, N. J., assignor to Ellis-Foster Company. Production of bismuth.
- 1,318,336—Carleton Ellis, Montclair, N. J., assignor to Ellis-Foster Company. Making oxides of bismuth.

### Granted Oct. 14, 1919

- 1,318,428—Frank E. J. Young, Chicago, Ill. Combined tooth-brush and tumbler-support.
- 1,318,431—James C. Adell, Cleveland, Ohio. Method of separating the oxides of iron and other metals occurring in compound ores.
- 1,318,461—Ernst Preiswerk, Basel, Switzerland, assignor to The Hoffman-La Roche Chemical Works, New York, N. Y. Isobutyl ester of oleic acid.
- 1,318,522—Solomon Alexander, Long Beach, Cal., assignor to Alvin Amos Crossman. Tooth-brush.
- 1,318,524—Arthur Arent, Des Moines, and Rudolph A. Kueyer, Iowa City, Iowa, assignors, by direct and mesne assignments, to Arentox Company, Chicago, Ill. Art of protecting and fireproofing materials.
- 1,318,533—Robert Boutet, Paris, France, assignor to La Societe Francaise Des Glycerines. Process for distillation of glycerin.
- 1,319,633—John M. Weiss, New York, N. Y., and Charles R. Downs, Cliffside, N. J., assignors to The Barrett Company. Catalytic oxidation of benzene.
- 1,318,647—Guy B. Collier, Kinderhook, N. Y. Rotary tooth-brush.
- 1,318,657—Hans A. Frasch, New York, N. Y. Method of and apparatus for distillation.
- 1,318,698—Ludwig Seitz and Hermann Wintz, Erlangen, Germany, assignors to Society of Chemical Industry, in Basle, Basel, Switzerland. Process for the manufacture of a menses-increasing substance from corpus luteum.
- 1,318,699—Ludwig Seitz and Hermann Wintz, Erlangen, Germany, assignors to Society of Chemical Industry, in Basle, Basel, Switzerland. Process for the manufacture of a menses-controlling preparation from corpus luteum.
- 1,318,702—Arrigo Tedesco, Turin, Italy. Method for manufacturing aluminum alloys.
- 1,318,714—Ernest A. Anderson, New York, N. Y., assignor to E. D. Anderson, Inc. Machine for making adhesive plasters.
- 1,318,763—Joseph E. Johnson, Jr., Hartsdale, N. Y.; Margaret Hilles Johnson executrix of said Joseph E. Johnson, Jr., deceased. Process of making ferrosilicon and by-products.
- 1,318,764—Joseph E. Johnson, Jr., Hartsdale, N. Y.; Margaret Hilles Johnson executrix of said Joseph E. Johnson, Jr., deceased. Process for producing iron alloys.
- 1,318,899—Jerome John Morgan, Maplewood, and Leslie Herr Backer, Mountain Lakes, N. J. Supporting-clamp for burettes, other tubes and rods.
- 1,318,911—Amelia Pfommer, Philadelphia, Pa. Nipple for nursing bottles and holders therefor.
- 1,318,920—Frank L. Slocum, Pittsburgh, Pa., assignor to James H. Reid. Process for the fixation of nitrogen.
- 1,318,936—Carlo Toniolo, Milan, Italy. Oxidation of ammonia.
- 1,318,964—Benjamin Chesa, New York, N. Y. Tooth-brush.
- 1,319,017—Francis Lyttle, Pasadena, Cal. Combined utensil and strainer.
- 1,319,027—Robert E. Divine, Cincinnati, Ohio, assignor to The Twitchell Process Company. Process of using sludge sulphonic acids for splitting.

### Granted Oct. 21, 1919

- 1,319,067—Frederick Hachman, St. Louis, Mo., assignor of one-eighth to David M. Hutchinson, Ferguson, Mo. Bottle-closure.
- 1,319,128—John R. Watson, Cartago, and William Hirschkind, Pittsburg, Cal., assignors to California Alkali Company, San Francisco, Cal. Process of making sodium sesquicarbonate and of recovering sodium carbonates from natural waters.
- 1,319,148—Horace Freeman, Niagara Falls, Ontario, Canada, assignor to American Cyanamid Company, New York, N. Y. Process of producing alkali metals from their chlorides.

1,318,178—Maximilian J. Reusz, Continental, Mo., assignor of one-fifth to Christian F. Schneider, one-fifth to J. C. Josse, one-fifth to F. R. Loveridge, and one-fifth to J. B. Turpin, St. Louis, Mo. Antifreezing solution.

1,319,133—Frank L. Slocum, Pittsburgh, Pa., assignor to James H. Reid. Preparation of crude material for manufacture of carbid.

1,319,206—Joseph H. Cohen, Brighton, Mass. Process for treating sludge from acetylene generation.

1,319,229—William G. Lindsay, Newark, N. J., assignor to the Celluloid Company. Non-inflammable cellulose.

1,319,319—Emile A. Barbet, Paris, France. Process and apparatus for the continuous rectification of spirits, petroleum and ben.ene.

E,319,365—Ewald Steinbuch and Paul Schetelig, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Process for the manufacture of acetaldehyde.

1,319,420—Frederick C. Ruff, Los Angeles, Cal., assignors to By-Products Manufacturing Company, San Francisco, Cal. Apparatus for extracting aromatic oils.

1,319,426—Frank L. Slocum, Pittsburgh, Pa., assignor to James H. Reid. Preparation of crude materials for manufacture of calcium carbid.

1,319,508—Guy D. Bengough and Oswald F. Hudson, London, England, assignors to themselves, to The Imperial Trust for the Encouragement of Scientific and Industrial Research, and to The Institute of Metals, Westminster, England. Process for protecting copper and its alloys from attack by atmospheres or liquids.

1,319,586—Olaf Jensen, Notodden, Norway, assignor to Norsk Hydro-Elektrisk Kvaestofaktieselskab, Christiania, Norway. Handling of nitroxyl sulphuric acid.

1,319,661—Jay E. Tone, Des Moines, Iowa, assignor to Tone Brothers. Perculator.

1,319,663—Royall O. E. Davis and Harry Bryan, Washington, D. C. Process for the recovery of ammonia.

## BOARD OF GENERAL APPRAISERS

In the protest of the National Aniline and Chemical Co. against the classification of Japan gum, extra super gum, crude gum, gum ghatti and Japanese crude gum, General Appraiser Hay upheld the contention that these grades and gum tragacanth, karaya gum and Indian gum are free of duty under paragraph 477, tariff act of 1913.

In the protest of F. B. Vandegrift & Co., New York, General Appraiser Hay made a similar ruling regarding gum shiraz and gum mamra, holding that these gums are free of duty.

General Appraiser Adamson overruled protests filed by the Western Wholesale Drug Co., Joseph Melezer & Co. and the Hilf Mercantile Co., all of Los Angeles, who attacked the validity of a reappraisal covering a shipment of whiskey in bottles. Judge Adamson said: "The protests in question attack the validity of reappraisal. While it is anomalous in other courts and cases for a man to assail and invalidate his own voluntary acts, it appears not to be remarkable here, but why a man should deliberately institute a void lawsuit and knowingly go through an illegal reappraisal and afterward be allowed to attack and seek relief from his act the writer of this opinion will not discuss. The facts in the case are at that whiskey in bottles was imported. In entering the merchandise, no note was made of the non-refillable fitments to the bottles, which are referred to indifferently as part of the contents and as wrappings for the contents. The importer, on entry, did not value all of the bottle, but only a portion of it inseparable from the other parts. The appraiser found the entered price was low, because it did not give the value of the entire bottle, and attempted to fix a value, in which he was partially correct. There is no doubt in the mind of the Board that the General Appraiser succeeded in valuing the bottle as an entirety, and as that value finally fixed was in excess of the value placed on the bottle on entry, there was no error in the action of the collector in so treating it."

## Financial Notes

An issue of \$1,000,000 7 per cent cumulative preferred stock will be proposed at a special stockholders' meeting of the Cheesbrough Manufacturing Company, Nov. 17. If the issue is ratified \$500,000 will be offered to stockholders at \$100 a share at the rate of one new share for each three shares of the outstanding common stock, amounting to \$1,500,000. The remainder will remain in the treasury for the present. The new preferred stock is to be redeemable at the option of the company after Jan. 1, 1925.

The \$10,000,000 second preferred stock of the United Drug Co. has been converted into common stock. This will leave the company with \$15,000,000 7 per cent preferred stock and \$30,050,000 common outstanding. Present earnings are said to be running at approximately \$20 a share on the common which now pays 7 per cent.

Silver at 121½ cents an ounce touched a new high in New York. The last high on silver was reached in 1890, at the time of the enactment of the silver purchase act, when it touched 121. The price also advanced at London, selling at 65½ pence an ounce, the highest price paid there in 80 years.

## QUOTATIONS ON CHEMICAL STOCKS

	Bid	Asked		Bid	Asked
Aetna Expl. ....	10	10½	Hercules, Powd., pf. 107	110	
Aetna Expl., pf. ....	67	68	H'k Electro. ....	60	70
Air Reduction ....	55	56	H'k Elec., pf. ....	65	75
*Am. Ag. Ch. ....	97	99	Heyden Chem. ....	8	9½
*Am. Ag. Ch., pf. ....	95	95½	*Int. Agricul. ....	25½	26
*Am. Chicle ....	98	102	*Int. Agricul., pf. ....	85½	87
*Am. Chicle, pf. ....	82	85	*Int. Nickel, pf. ....	26½	27
*Am. Cot. Oil. ....	56½	57	*Int. Nickel, pf. ....	90	92
*Am. Cot. Oil, pf. ....	92	93	*Int. Salt ....	65	70
*Am. Cyan. ....	25	33	K. Solvay ....	80	110
*Am. Cyan., pf. ....	60	65	*Mathieson Alk. ....	40	42
*Am. Druggists S. ....	10½	11	Merrimac ....	92	94
Amer. Glue ....	40	45	Mulford Co. ....	55	60
Amer. Glue, pf. ....	65	70	Mutual Co. ....	150	
*Am. Linseed. ....	79½	80	*Nat. A. & C. ....	60	61
*Am. Linseed, pf. ....	95½	96	*N't A. & C., pf. ....	88	89
*Am. Malt ....	58	58½	National Lead ....	88½	89
Amer. Zinc ....	21½	22	National Lead, pf. ....	107	109
Amer. Zinc, pf. ....	56½	59	N. J. Zinc ....	252	255
Atlas Powder ....	148	154	Niac. A., pf. ....	96	100
Atlas Powd., pf. ....	90	92	Parke, Davis & Co. ....	123	130
*Barrett Co. ....	125½	127	Penn. Salt ....	80	80½
*Barrett Co., pf. ....	114½	116½	Procter & Gamble. ....	676	695
British Am. Chem. ....	9	9½	Procter & Gam., pf. ....	101	101½
Butterworth-Jud. ....	33	35	Rollin Ch. ....	50	60
By. Prod. Co. ....	114	118	Rol. Ch. pf. ....	80	90
Carborundum ....	135	135½	Royal Baking Po. ....	140	150
Carborundum, pf. ....	115½	116	Royal Bak. Po., pf. ....	96	98
Casolin Co. ....	40	48	Semet S. ....	165	175
Celluloid Co. ....	135	145	Sherwin-Williams ....	520	540
Celluloid, pf. ....			Solv. Proc. ....	200	275
Corn Products ....	95	95½	Stand. Ch. ....	80	100
Corn Products, pf. ....	107	109	Swan & Finch. ....	125	130
Cu-Mor Chem. ....	1	1	*Tenn. C. & Chem. ....	12½	13
Davidson Chem. ....	30	31	Tex. Gulf, Sul. ....	15½	15½
Dow Chem. ....	175	200	Union Carbide ....	80½	81
Dow Ch., pf. ....		103	Union Sulphur ....		
Du Pont ....	410	450	*Un. Drug ....	150	155
Du Pont, deb., pf. ....	91	93	*Un. Drug 1st pf. ....	52½	53
Du Pont, C., pf. ....	8	10	*Un. Dyewood ....	50	61
Freeport, Tex. Sul. ....	46	46	*Un. Dyewood, pf. ....	90	96
Freeport, Tex. Sul., pf. ....	91	93	U. S. Gypsum ....		
*Gen. Chem. ....	183	187	*U. S. Indus. Alco. ....	109	109½
*Gen. Chem., pf. ....	101	104	U. S. Indus. Al., pf. ....	105	105½
Grasselli ....	170	170	Va.-Car. Chem. ....	77	78
Grasselli, pf. ....	101	105	*Va.-Car. Ch., pf. ....	112	115
Hercules Powder. ....	223	230	V. Vivaudou ....	30½	31

## BONDS

	Bid	Asked
*Am. Agricul. Chem., 1st conv. 5s, 1928. ....	97	99
*Am. Agricul. Chem., conv. deb. 5s, 1924. ....	100	101
*Am. Cotton Oil deb. 5s, 1931. ....	88	89
*Int. Agricul. Corp., 1st Mort. & Col. tr. 5s 1932. ....	83½	85
*Va. Carolina Chem., 1st Mort. 5s, 1923. ....	95	96
*Va. Carolina Chem., conv. deb. 6s, 1924. ....	103½	104

\*Listed on New York Stock Exchange

## New Incorporations

Waste Products Co., Dover, Del., capital \$200,000. To extract grease from garbage. Edwin H. Cochran, George H. Singer, Katherine I. Farra, Wilmington, Del.

Bert-Jardi Medicine Co., Manhattan, capital, \$50,000. V. T. Follmar, A. Allbrecht, A. P. Barranco, 14 Wall Street, New York.

Zatso Chemical Co., Ashland, Wis., capital, \$20,000. To manufacture chemicals, drugs and medicines. A. H. Wilkinson, H. C. Hale, G. W. Denison.

Trio Manufacturers Co., Manhattan, capital \$50,000. Drugs and chemicals, E. E. and H. F. and L. L. Falke. 5316 Thirteenth Avenue, Brooklyn.

The Mathol-Inflammiceneo, Inc., Rochester, N. Y., capital \$25,000. Drugs, medicines and chemicals. F. W. Clements, W. Blamire, C. W. Haller, Rochester.

Wye Soap Corporation, Buffalo, N. Y., capital \$300,000. P. L. Hartfield, F. H. Kraft, F. B. Siegel, Williamsville, N. Y.

General Paint Products Co., Brooklyn, N. Y., capital, \$10,000. J. Berson, J. Becher, B. Oberlander, 25 East 112th Street, New York.

McKee-Hodshon Co., Manhattan, capital \$50,000. Chemicals, oils, and roofing materials. T. P. McKee, R. J. Hodshon, H. S. Neiman, 2280 Eightieth Street, Brooklyn.

American Invention Promoting Co., Atlanta, Ga., capital, \$50,000. To manufacture chemicals. O. A. Shaw, J. E. Arnold, W. A. Beasley, Atlanta.

Nezno Chemical Co., Montgomery, Ala., capital \$50,000. R. A. Seibels, E. T. Hale, Frederick Martin, all of Montgomery.

Dudman Drug and Chemical Co., Charleston, S. C., capital \$10,000. D. A. Brockington, R. E. Lee, Charleston.

Crystalon Chemical Co., Charleston, S. C., capital \$200,000. F. E. Beatty, W. B. Atwater, J. F. Morse, C. H. Drayton, Charleston.

Morris Chemical Corporation, Lynchburg, Va., capital \$24,000. Automobile and furniture polishes. Robert Smith, A. T. Harwood.

Salvo Olive Oil Co., Manhattan, capital \$50,000. D. E. Hubener, J. M. Edelson, G. S. Whittson, 601 West 115th Street, New York.

International Standard Exporting Corporation, Manhattan. Drugs and chemicals. R. Martinez, R. P. Monahan, W. P. McCool, 52 Wall Street, New York. Onondaga Chemical Co., Syracuse, N. Y., capital \$50,000. C. D. Wright, W. H. Farrington, J. D. Crimmons, Syracuse.

Masury Paint Stores Co., Dover, Del., capital \$100,000. T. L. Croteau, P. B. Drew, H. E. Knox, local incorporators for trust company at Wilmington, Del. **Capital Increases**—Republic Druggists Syndicate, Manhattan, from \$200,000 to \$1,000,000.

Gaskill Chemical Corporation, Brooklyn, from \$15,000 to \$50,000.

The Haelenol Co., Rochester, N. Y., capital \$25,000. Drugs and medicines. F. W. Clements, B. Luscher, W. Blamire, Rochester.

Liberty Malt Products Corporation, Manhattan, capital, \$5,000. To make chemicals. M. Selbstein, M. Hillman, L. H. Solomon, 200 Fifth Avenue, New York.

The California Zinc Company, Martinez, Cal., capital \$500,000. Helen Leonard, J. F. Resleure, Elizabeth R. Arnold, William Kent and W. B. Aston. A zinc reduction plant will be established at Bay Point, Cal.



## The Drug and Chemical Market

Current Spot Quotations of Pharmaceuticals, Page 32; Crude Drugs, Pages, 34-36; Essential Oils, Page 38.

### TRADING IN DRUGS RESTRICTED

**Spot Stocks Greatly Reduced During the Dock Strike**  
—Buyers Watching Price Changes Closely—Botanicals Scarce and Many Products not Obtainable

### PRICE CHANGES IN NEW YORK (Stocks in First Hands)

#### Advanced

Acetanilid, 3c lb.	Quinine sulphate, 5c oz.
Acetphenetidin, 15c lb.	Alkaloid, 12c oz.
Camphor, monobrom., 50c lb.	Quinidine, alk., 20c oz.
Cinchonidin, 20c lb.	Thymol, 25c lb.
Cinchonine, alk., 13c oz.	Manna, small, 2c lb.
Sulphate, 10c oz.	Balsam fir, Ore., 5c gal.
Codeine, alk., 70c oz.	Tolu, 5c lb.
Phosphate, 75c oz.	Prickly Ash, Southern, 2c lb.
Sulphate, 65c oz.	Cubeba, 5c lb.
Formaldehyde, 1c lb.	Gamboge, 5c lb.
Lycopodium, 5c lb.	Buchu, short, 5c lb.
Menthol, 25c lb.	Coshoh, black, 1c lb.
Mercury, \$5 flask	Mandrake, 2c lb.
Podophyllin, 25c lb.	Urnicorn, true, 5c lb.
	Cinnamon, 2c lb.

#### Declined

Antipyrine, 5c lb.	Sodium benzoate, 3c lb.
Caffeine, alk., 25c lb.	Turpentine Venice, \$1 lb.
Ether, U.S.P., conc., 2c lb.	Sarsaparilla, Mex., 2c lb.
Anaesthesia, 2c lb.	Anise, Span., 1/2c lb.
Haarlem Oil, Imp., 50c gross	Caraway, African, 1/2c lb.
Santonin, \$10 lb.	Fennel, German, 4c lb.
	Carnauba, chalky, 5c lb.

### Trend of the Market

	Today	Last Week	Last Month	Last Year
Acid Salicylic	\$48	\$47	\$43	\$93
Calomel	1.59	1.39	1.76	2.00
Camphor, Jap., ref.	3.70	3.70	2.83	4.00
Glycerin	20	20	20 1/2	5.60
Menthol	10.25	10.00	7.75	5.60
Opium, Gum	7.50	7.50	7.50	22.50
*Quinine Sulphate	.90	.90	.80	.90
*Cantharides, Russ.	3.75	3.75	3.25	4.00
Ergot, Spanish	4.10	4.00	3.75	1.95
Buchu, Short	2.30	2.25	2.00	2.55
Ipecac, Cartagena	3.20	3.10	2.70	4.25
Rhubarb, H. D.	1.80	1.80	1.85	.70
Cloves, Zanzibar	.53	.50	.38	.47

\*No goods available at this price

Actual sales in the crude drug and fine chemical markets are very much restricted. The dock strike has reduced the spot stocks on many items to a minimum. The sugar shortage affects the business of the pharmaceutical and confectionery industries. The prospect of a coal shortage is upsetting to many manufacturers. The N. W. D. A. convention has carried off many buyers and sellers to New Orleans.

Nevertheless, although the business actually passing is comparatively small, still there is a continued inquiry, both from domestic and foreign buyers, who, it is evident, are watching the market very carefully. There is evidently a big volume of export business in immediate prospect.

Camphor, menthol and quinine still hold the center of the stage; but the veritable famine in botanicals is beginning to attract more and more interest, and shrewd buyers are studying to meet their consuming demands. It is very evident from the quotations that come from the country that record prices for native drugs are going to be realized before the 1920 crops are available, while there is certainly no prospect of a break in the prices of the imported articles. A favorite pastime of both buyers and sellers is to guess at the stock tied up by the strike, and then to forecast the effect upon the market of the release of these goods. It is the consensus of good opinion, however, that the

breaking of the strike will not materially reduce prices as a whole, for it will take some time to clear the congested docks, and orders yet to be filled are piling up for those items that are in most demand.

Manufacturers have announced several important price changes in the list of fine chemicals. Quinine salts, alkaloid and derivatives have all been moderately advanced, but very little is as yet available. The manufacturers announce that they are not entering contracts nor accepting orders for forward delivery. Codeine and its salts have also been advanced, despite the ever easier market for opium. Ether, both concentrated and anaesthesia, has been reduced 2c per pound.

### Fine Chemicals

**Acetanilid**—Makers have advanced their prices, and as the spot stocks in New York have been reduced this item is strong at 48c@50c. At the close of last week one factor quoted 46c firm; but it is understood this price could not be done Monday.

**Acetphenetidin**—Makers are quoting \$2.25 for January delivery, but the spot price is generally \$2.50, though \$2.40 is reported possible.

**Antipyrine**—Weakness is again apparent, and although \$4.75 is still quoted this figure is easily shaded.

**Alcohol**—The market stands up firmly after the increases in denatured and wood last week, and prices are well maintained.

**Bromides**—Manufacturers announce advances of 10c per pound on all salts, quoting 76c for potassium and 61c for sodium bromide.

**Caffeine**—The tendency to higher prices of last week passed, and though there is still a scarcity, demand is slackening off, and the 25c cut to \$7.25@7.75 leaves this item dull and firm.

**Camphor**—No price changes are recorded, except in the monobromated which has been advanced by producers to \$5.00 per pound. London cables are very bullish, and once the holiday business is cleared away, raised prices may prevail.

**Cinchonidin**—The new price is 20c higher—\$1.26 an ounce.

**Cinchonine**—The alkaloid has been advanced 13c to 74c an ounce, and the sulphate 10c to 45c an ounce.

**Codeine**—On the 27th ult. manufacturers announced the following price schedule, in 10-ounce lots, one delivery:

Alkaloid, 1 oz., vials incl., \$11.45 per oz.; 1/2 oz., vials incl., \$11.65 per oz.

Acetate, 1 oz., vials incl., \$10.30 per oz.; 1/2 oz., vials incl., \$10.50 per oz.

Hydrochloride, 1 oz., vials incl., \$10.30 per oz.; 1/2 oz., vials incl., \$10.50 per ounce.

Nitrate, 1 oz., vials incl., \$10.30 per oz.; 1/2 oz., vials incl., \$10.50 per oz.

Phosphate, 1 oz., vials incl., \$8.60 per oz.; 1/2 oz., vials incl., \$8.80 per oz.

Sulphate, 1 oz., vials incl., \$9.15 per oz.; 1/2 oz., vials incl., \$9.35 per oz.

Hydrobromide, 1 oz., vials incl., \$9.15 per oz.; 1/2 oz., vials incl., \$9.35 per oz.

Fifteen cents per ounce higher in less than 10-ounce lots, one kind or assorted.

**Cream of Tartar**—A 1c advance to 53c@55c is the result of increased demand and reduced stocks.

**Ether**—Manufacturers have lowered the prices 2c a pound to 100-pound lots assorted, one (1) cent per pound less:

Ether Concentrated, 100 lbs. bulk, 17c per pound.

Ether Anaesthesia, 100 lbs. bulk, 21c per pound.

Ether U. S. P. 1880, 100 lbs. bulk, 34c per pound.

Ether Washed, 100 lbs. bulk, 26c per pound.

**Haarlem Oil**—The imported is now selling at \$5.50 a gross, a reduction of 50c.

**Magnesium Sulphate**—Epsom salts are easier in the technical grades which are now selling at \$2.20@2.30.

**Menthol**—Higher and higher soars the price, the \$9.75 inside figure having been changed to \$10, while \$10.50 is heard in several quarters and is expected to represent the bottom of the range by the end of the week. Our London correspondent cables that menthol is very firm in the British market, and advices from Japan are not such as to lower prices here.

**Mercury**—The metal is not to be found for less than \$100 a flask in New York now. Imports last week total 300 cylinders and 18 flasks, but none of these have reached the market, and the trade is as yet undecided as to the amount that is tied up down the bay by the strike.

**Podophyllin**—Continued scarcity makes for continued price advances, and the figure of \$7.50@8.00 has now been reached.

**Quinine**—Second hands are very decided in their quotation of \$1.40@1.50 for American-made sulphate in hundred-ounce tins, and the manufacturers have firmed up the market by their revision upwards of the minor salts according to the following schedule in 100-ounce lots in bulk, 100-ounce cans included: Alkaloid, \$1.29; Acetate, \$1.29; Arsenate, \$1.29; Arsenited, \$1.29; Benzoate, \$1.29; Citrate, \$1.29; Dihydrobromide, \$1.29; Dihydrochloride, \$1.29; Ferrocyanide, \$1.29; Formate, \$1.29; Glycerophosphate, \$1.29; Hydriodide, \$1.29; Hydrobromide, \$1.19; Hydrochloride, \$1.19; Hydrochloride and Urea, \$1.29; Hydrochlorosulp, \$1.29; Hypophosphite, \$1.29; Lactate, \$1.29; Phenolsulphonate, \$1.29; Phosphate, \$1.19; Salicylate, \$1.19; Tannate, 90c; Tartrate, \$1.29; Valerate Powder, \$2.12.

**Santonin**—Another tumble of \$10 has brought the price down to \$80@90.

**Thymol**—A further advance of 25c a pound has brought the price up to \$7.50@8.00 for the U. S. P. crystals. Like camphor and menthol, advices from London are distinctly bullish, and in conservative trade circles still further advances are expected.

#### Crude Drugs

**Ergot**—Russian and Spanish are both tightly held at \$4.00. Imports from Barcelona last week totalled 29 cases.

**Balm of Gilead Buds**—Offerings of the new crop for December delivery are made at below \$3.00, but the spot market is very firm at \$4.00 due to extreme scarcity.

**Manna**—The small flake is higher, and a lower price than 60c per pound (an advance of 2c) is not quoted by holders of spot goods.

**Balsam, Oregon Fir**—Steady inquiry and short stocks have raised the price to \$1.60@1.75.

**Cascara Sagrada**—Prices have settled down to 16c for this year's bark, 17c for 1918; 18c for 1917; 19c for 1916, and 20c for 1915.

**Prickly Ash**—A sharp demand has developed, and prices have stiffened for the southern variety to 20c@22½c, a 500-pound order being filled the first of the week at the inside figure.

**Bayberry**—This bark is in increasing demand, and several inquiries from London have been in the market. The spot price is up to 38c@40c, with quotations from the country of 60c.

**Insect Flowers**—A lot of the Japanese powdered found ready sale this week, and purchasers are still insistent in their demands, which cannot be met by spot stocks.

**Linden Flowers**—Prices are as yet unchanged, but there is an active inquiry for export.

**Buchu**—The short variety has further advanced to \$2.25@2.35.

**Belladonna**—Selling pressure and an apparently satisfied consumption demand has temporarily eased up the price to 28c@30¾c.

**Lobelia**—No sales are reported made at the current quotation of 30c@38c. The shortage is more and more apparent.

**Ipecac**—Hard competition failed to better a selling price of \$3.25 in less than bale lots.

**Senega**—The beginning of the consuming season finds senega closely held. Quotations from the country are \$1.70.

**Mandrake**—A 10-ton order was filled Monday at 30c a pound, and it is considered doubtful whether this price can be bettered for large lots, though, like several of the crude drugs, mandrake is cheaper in small odd lots than in orders of considerable quantity.

### Drug Trade News Notes

New Orleans is short of quinine, and druggists report that they are unable to purchase more than a few ounces at a time from wholesalers in that city.

The Novo Laboratory Co., manufacturers of proprietary preparations, have purchased a factory at Perth Amboy for \$12,000.

Shipments of potassium iodide from Japan during the first half of 1919 amounted to 53,945 kin against 100,351 kin in the same time last year and 70,959 kin in the corresponding period of 1917.

The Houston Drug Co., Houston, Tex., has closed a deal with the Hermann hospital estate by which it acquires 50x100 feet adjoining its building. The consideration was \$20,000. The property will form the site for an addition.

A large shipment of licorice root and opium formed part of the \$6,000,000 cargo that arrived at Boston, Oct. 27, in the British steamer Araxes from Salonika and other Eastern ports. Most of the cargo is consigned to New York importers.

The old buildings at 566 Greenwich Street, on lot 25x80, and at 545 and 547 Washington Street, on plot 50x67, have been bought by the Broadway-John Street Corporation, Elias A. Cohen, president, from the Hankinson Realty Company. The property is in the new drug section, and will be sold to concerns in that line of business. Charles Cohen was the broker. Lehn & Fink recently purchased the corner of Greenwich and Bedford Streets, Parke, Davis & Co. are in the same section.

Construction work on the new Dallas (Texas) plant of the Procter & Gamble Company is now under way and will be expedited in every way, according to an announcement made by A. E. Anderson, general superintendent of the company at his offices in that city. The new plant will serve the southwest territory. No soap products will be manufactured there for the present, the plant being devoted to the manufacture of food products. It will cost in the neighborhood of \$1,000,000.

## The Essential Oil Market

Current Spot Quotations of Essential Oils and Aromatic Chemicals, Page 38.

### STOCK AND DELIVERY THE MAIN FACTORS

**Shortage of Many Staple Items Increases and Prices are Tending Towards Higher Levels—Messina Essences Reflect Speculative Market in Sicily—Methyl Salicylate, Coumarin, Vanillin and Heliotropin Advanced by Their Makers**

### PRICE CHANGES IN NEW YORK (Stocks in First Hands)

Advanced		Declined	
Oil bay, 50c lb.	Oil orange, sweet, W.I., 10c Ital., 25c	Oil Geranium, Bourbon, 50c lb.	
Oil camphor, Jap., 1c lb.	Oil sandalwood, E.I., 25c	Turkish, 50c lb.	
Oil juniper berries, 25c lb.	Oil sassafras, artif., 5c	Genaryl acetate, 75c lb.	
Oil lavender, flowers, 75c lb.	Coumarin, 25c lb.		
Spike, 10c lb.	Heliotropin, 25c lb.		
Oil lemon, U.S.P., 15c lb.	Methyl salicylate, 10c lb.		
Oil lemongrass, 15c lb.	Vanillin, 10c lb.		

### Trend of the Market

	Today	Last Week	Last Month	Last Year
Oil Bergamot	\$4.60	\$4.60	\$5.00	\$7.50
Oil Citronella, Ceylon	.53	.51	.46	.57
Oil Cloves	3.50	3.25	2.70	3.25
Oil Lavender Flowers	9.75	9.25	7.25	6.00
Oil Lemon	1.30	1.15	1.30	1.80
Oil Peppermint	8.00	8.00	7.75	5.30
Oil Sandalwood, E. I.	10.50	10.50	11.00	13.55
Oil Sassafras, Artif.	.75	.72	.53	.51
Benzaldehyde, F. F. C.	1.50	1.50	1.50	5.50
Coumarin	7.25	7.00	7.00	30.00
Eucalyptol	1.45	1.30	1.10	1.25
Methyl Salicylate	.70	.60	.55	.90
Vanillin	.90	.78	.67	.93
Thymol	7.75	7.40	6.25	13.50
Menthyl	10.25	10.00	7.75	5.75

Half the story of the essential oil market situation in New York this week can be told in two brief questions: "What have you in stock?" and "When can you make deliveries?"

All throughout the list stocks in hand are dwindling, and the natural consequence is higher price quotations and much firmer holding by first hand dealers. The dock strike is largely responsible for these conditions, and so many unfilled orders are accumulated that, despite the large stocks piled up on the wharves, it is not thought that there will be a marked recession even when the stevedores begin in earnest to work unloading the ships. But the dock strike is not the sole factor in the situation. Cables from Messina tell of a wild market in which speculation is rife, and the Messina essences are being watched carefully by shrewd buyers. Bergamot is steady; lemon is tending higher; orange is marked up sharply. Report has it that several houses have good supplies of eucalyptus afloat, but the prices for spot delivery have not been affected by this prospective stock.

There is much variation in the prices of various dealers—more so than is usually noted—and second hands and brokers are getting what they can for such stocks as they have for sale. It is pre-eminently a market for shopping, though sales are very brisk because of firm prices and ready demand.

### Essential Oils

**Oil Bay**—Continued firmness and demand have caused an increase of 25c to \$4.25, while as high as \$5.00 is quoted by some holders of spot stocks.

**Oil Camphor**—This oil, which is the ordinary commercial source of safrol is now very firmly held at 23c@25c.

**Oil Citronella**—Both the Java and the Ceylon are scarce and apparently in demand, but, as yet, there has been no advance in prices, although the orders accumulated over the holiday are apt to cause immediate advances from those who have only restricted stocks.

**Oil Cloves**—The sharp upward revision of last week holds good, and buyers are taking offerings freely at the \$3.50 figure.

**Oil Cubebs**—The market is easier, and although \$9.00 is still asked, the inside figure of \$8.50 is heard at several places downtown.

**Oil Eucalyptus**—The sudden and great shortage is still felt badly, and an important factor in the market is quoting the flat price of 95c firm. However, 10c below this figure can be done, and, as buyers have temporarily withdrawn, the situation is more steady.

**Oil Geranium**—Sharp cuts are made in the Bourbon and Turkish, both being off 50c a pound, to \$8.50@ \$9.00 and \$4.50@\$4.60 respectively. The heavy importations of rose oil—10 cases reached this port this week from Smyrna to three consignees—are having greater effect on the geranium than on the rose price, due probably to the fixed price on the Bulgarian otto rose and the great shortage of the French stocks.

**Oil Juniper Berries**—The spot stocks are almost all consumed, and the shortage reported last week is acute and only small quantities can be obtained at \$8.00@\$8.50.

**Oil Lavender Flowers**—Scarcity, coupled with reports of small stocks abroad which, by the way are denied by some, have caused holders to advance prices to \$10.00@\$10.25 for the flowers. The spike is now priced at \$1.40@\$1.50 and held firmly at these figures.

**Oil Lemon**—Disquieting cables from Sicily have sent the price up 15c to \$1.30, with an outside figure of \$1.50. There were imports of 220 cases from Genoa during the past week; and the accumulated stocks on the docks are now very large, which has a stabilizing tendency on those who would be inclined to juggle prices at this time. Messina is quoting New York in dollars upon a basis of \$1.50 laid down here with the duty paid.

**Oil Orange**—The Italian has advanced to \$3.75@ \$4.00, and the West Indian is now quoted at \$2.40@ \$2.50. Even higher levels are looked for in conservative quarters, and the outside figures are expected to be the inside before the end of the week.

**Oil Peppermint**—The watchful waiting policy of buyers has resulted in some price concessions, although the market has not by any means been broken. Large shipments continue to arrive from London—505 cases last week—which are said to be stocks of American oil of the 1919 crop which British buyers refused at the prices asked. In tins \$7.75 is now quoted nominally, but without stimulating the restrained demand which refuses to buy save for immediate needs.

**Oil Sandalwood**—The West Indian is off the market, and any prices named are purely nominal. Accordingly the East Indian is naturally stronger at \$10.50@\$11.00.



**Oil Sassafras**—The artificial oil is very hard to locate. It is doubtful if 75c can be bettered now, and in many places 80c is asked without concessions.

**Oil Wormwood**—The sharp advance of two weeks ago has been sustained by a steady demand that is not discouraged by an inside figure of \$8.00.

**Oil Wormseed**—This item is reported to be very scarce in New York, although there have not as yet been any notable advances in price.

#### Aromatic Chemicals

**Coumarin**—Manufacturers are way behind in production, and even contracts from old customers are being delivered short. The demand is active, and it is not easy to find goods in hand for ready shipment at the quoted price of \$7.00@7.50. A big buyer was unable to buy necessary supplies at a premium of 50c over the outside of the quotation, but smaller lots are naturally easier.

**Geranyl Acetate**—A cut of 75c to \$6.50 is reported by the manufacturers' agents.

**Heliotropin**—The short stocks and high prices of safrol have sent heliotropin up, and manufacturers are now asking \$4.00 a pound.

**Methyl Salicylate**—Like the other salicylates this has been marked up by producers, the new figure being 70c.

**Safrol**—It is said that any buyer would have difficulty in locating a stock of a hundred pounds in one holder's hands, and the quotation of 85c@90c is regarded as purely nominal.

**Vanillin**—The higher price expected last week has materialized in an increase of 10c to 85c@\$1.00. The recent quick, sharp jump of cloves is sufficient explanation; but it is significant that the demand was much greater the latter part of last week and has not eased off over the week end.

#### LAVENDER CROP IN FRANCE

Returning from a journey in the Alpes, R. M. Gattefossé, of Lyons, France, gives the following report on the lavender crop this year. The harvest of the flowers of this annual appears to be very uncertain. We have been able to verify on the spot the disastrous effects of the continued drought experienced in Provence since the beginning of March. Speaking generally, the clumps are poor, producing only short spikes. Labor is paid at the rate of 20 francs per day, and when the collectors are paid by weight of flowers, they cut at the same time many leaves both from the shortness of the spikes and the desire to increase the weight. In Grasse, where firms have installed distilleries, the contest in buying was so fierce that the cut flowers realized from 75 to 100 francs per 100 kilograms. The yield varying this year between 300 and 600 grams from 100 kilograms, the price of the essence in these regions will be above 200 francs per kilogram.

In the other cantons where travelling distilleries have been instilled, the flowers fetch from 45 to 50 francs per 100 kilograms, the average price of the essence being from 110 to 120 francs per kilogram. It is at the latter rate that the first transactions have been effected. Undoubtedly these prices will mount still higher if the scarcity of the essence is confirmed, and if the demand remains as firm on account of the depletion of stocks.

George V. Gross, of George V. Gross & Co., dealers in perfumes and essential oils, is to leave early in November for a three months' tour of Europe for the purpose of studying market conditions.

#### ESSENTIAL OILS IN GERMANY

##### Dr. Edward C. Worden Describes Conditions Observed During Recent Tour of Factories—Country Weak in Perfumery Materials—Synthetics in Poor Supply

Dr. Edward C. Worden, whose visit to the German chemical factories was told in brief in DRUG & CHEMICAL MARKETS of Sept. 17, also made a study of the essential oil industry while in Germany, where he went as chemical expert of the United States Bureau of Aircraft Production. Dr. Worden was formerly associated as consulting chemist with Dr. Samuel Isermann, synthetic perfume connoisseur and president of Van Dyk & Co., New York. "The Perfumery and Essential Oil Record," of London, gives the following summary of Dr. Worden's observations while in Germany.

Germany is very badly off in all imported essential oils and imported raw material for distillation; in fact, in this connection everything is more or less suspended, as she has not had time to recover either her chemical or commercial poise.

Also she is weak in perfumery material and oils dependent on home cultivation, through land-neglect whilst the unskilled field labor was at the war.

Good research has been done during the war with commercial supplies of novel synthetics.

The established synthetics, like vanillin, are in poor supply, but the factories are endeavoring to work these up from the quantities of intermediates on hand.

"In Cologne," Dr. Worden said, "I had a chat with a representative of the firm of Schimmel & Co., who told me that in natural oils their stocks were very low in consequence of the general disorganization during the war and more particularly because the German Government had been very drastic in reducing to a minimum transportation of all articles not strictly necessary for carrying on the conflict. To a firm of Schimmel's magnitude, drawing on all the world for raw material, the effect on the output of distilled oils and other products of a severely restricted transport can be understood. I was also told that in natural odors like rose it would take several years to bring production to normal.

"In pharmaceutical products, photographic chemicals and perfumery, and flavoring articles, such as vanillin, coumarin, terpineol, methyl-ethyl-ketone, methyl-phenyl-ketone, benzyl acetate and benzoate, aubepine, and especially those odoriferous bodies used in perfuming soap, the works when I left were only awaiting the prime bases to manufacture on a large scale. The specialization in soap perfumery has been induced by anticipation of a great domestic demand for soap to adjust the shortage arising during the war from restriction on the fat industries. For some of the finer chemicals as ionone and the various other artificial violets; tri-nitro butyl toluol and xylol as musk substitutes for fixation purposes; methyl octin carbonate and the allied methyl heptin carbonate; together with phenyl acetaldehyde, synthetic oil of cognac, and the various fruit essences, the German firms were ready to write contracts for delivery of substantial amounts directly after the ratification of the Treaty."

Exports of mint oil from Japan during the first half of 1919 amounted to 198,714 kin against 78,603 kin in the same time last year and 106,232 kin in the corresponding period of 1917.

Colgate & Co., Jersey City, have had plans prepared for the erection of an eight-story reinforced-concrete building, to be located at 68-76 Grand Street, and estimated to cost \$185,000. The company will also erect a four-story addition to its building at 69-71 York Street, to cost \$16,000.

## The Heavy Chemical Market

Current Spot Quotations of Heavy Chemicals, Pages 38 and 40.

### MANY HEAVY CHEMICALS SCARCE

**Sulphuric Acid Supplies Short for Prompt Delivery—  
Little Buying of Products for Export Owing to  
Difficulty in Shipping—Congestion Reflected also  
in Domestic Business**

### PRICE CHANGES IN NEW YORK (Stocks in First Hands)

**Advanced**  
Ammonium Sulphate, 5c per 100 lbs.

**Declined**  
Yellow Prussiate of Potash, 2c lb.

### Trend of the Market

	Today	Last Week	Last Month	Last Year
Acetic Acid, Glacial.....lb.	\$1.12 $\frac{1}{4}$	\$1.12 $\frac{1}{4}$	\$1.14	\$1.19 $\frac{1}{2}$
Sulphuric Acid, 66 deg.....ton	20.00	20.00	18.00	28.00
Bleaching Powder .....100 lbs.	2.50	2.50	2.00	2.75
Copper Sulphate .....100 lbs.	8.25	8.25	9.00	9.50
Potash, Caustic .....lb.	.30	.27	.28	.74
Saltpeter, gran. ....lb.	.13 $\frac{1}{4}$	.13 $\frac{1}{4}$	.13 $\frac{1}{4}$	.27
Soda Ash, 56 p.c.....100 lbs.	2.00	2.00	2.00	2.50
Caustic Soda, 76 p.c.....100 lbs.	3.30	3.30	3.30	4.30
Potassium Bichromate .....lb.	.27	.27	.24	.45

Actual trading in many of the important heavy chemicals continues to be restricted, because of the scarcity of goods for spot or near-by delivery. The congested conditions at the wharfs are reflected strongly in the market. Receivers are unable to move shipments from docks, and exporters are not inclined to purchase heavily, owing to the uncertainty of shipment of goods. Inquiries are heavy, and trading is confined to spot material. Some contract business is being done for 1920. Higher prices are named for goods available, which promotes a waiting attitude on the part of the consumer. Many of the items are in very short supply, and quotations are largely nominal, varying considerably according to holder.

Alums still retain their strong position under the slight scarcity, especially chrome ammonium which is in good request for export. Aluminum sulphate is holding firm. Ammonia water is off the spot market and is in strong request. Muriate lump has failed to show any signs of weakening, owing to the scarcity of spot material. Ammonium sulphate is tending upward. Holders are "bullish," and prices are higher for later deliveries. Bleaching powder retains its strong position, being in light supply. Copperas is strong at the advanced level. Copper sulphate is quiet, and there is no real business of note to record. If anything, the market is slightly easier. Fluorspar producers are recalling selling prices, due to the lack of goods to offer.

Potash crude first sorts are firmer and very scarce. U. S. P. carbonate is unchanged, there being little material available. Permanganate is practically off the market and is in heavy demand for export. Yellow prussiate is lower and red is slightly easier. However, the supply on both is rather limited for spot business.

Caustic soda is higher in second hands, owing to the strong position of the producers. Soda ash has failed to strengthen. Bichromate is stiffer and under good inquiry for later delivery. Prussiate is firm at high levels. The material is still light on spot.

The acid situation is unchanged. Acetic continues to move freely and is under good inquiry for export. Muriatric offerings are freer. Hydrofluoric is stronger

and firm. Sulphuric is very short for prompt business.

**Acid, Acetic**—Offerings are limited, but the supply appears to be in keeping with the demand. Glacial in barrels is quoted at 11 $\frac{1}{4}$ c@12c, according to holder. Carboys for export are held at 17 $\frac{1}{2}$ c@18c inclusive, and demijohns at 19c. The various percentages are moving freely on the basis of \$2.75 for the 28 p. c. acid.

**Muriatic**—The supply is somewhat easier, although many producers seem to be under contract for their entire output. The 20-degree material in carboys was available during the week at \$1.65 per hundred, and holders of this particular lot experienced difficulty in unloading at this figure. Selling competition is keen among certain holders who are quoting low prices.

**Acid, Sulphuric**—Very little material is reaching the open market, as most of the production is taken on contract. Prices are strong and firm with the best offer heard during the week confined to five tank car lots of the 66-degree acid which was held at \$18.50 f. c. b. New York.

**Acid, Hydrofluoric**—The scarcity of this acid continues, owing to the position of fluorspar. Quotations are strong at 8c@9c for the 30 p. c.; 11c@12c for the 48 p. c., and 12c for the 52 p. c.

**Acid, Nitric**—Consuming requirements are larger and the market is considerably stronger, owing to the light supplies. Although 7 $\frac{1}{2}$ c@7 $\frac{3}{4}$ c is still the price, higher quotations are being named in the trade.

**Alums**—Lump material is in strong request with supplies light. About 4c is quoted for the ammonium, and 7 $\frac{3}{4}$ c for U. S. P. potash. Powdered and ground ammonium still retain their strong position at 4 $\frac{1}{2}$ c@4 $\frac{3}{4}$ c for the ground and 4 $\frac{1}{4}$ c@4 $\frac{1}{2}$ c for the powdered. Chrome ammonia is in short supply and in good call for both export and domestic at 15c@17c.

**Aluminum Sulphate**—Commercial material is unchanged at \$1.75 and the iron free at \$2.75@3.00. Both grades are in good request, and holders are firm.

**Aqua Ammonia**—Offerings are very limited, and little prompt business is going through, owing to the scarcity. Spot quotations are wide and largely nominal. However, manufacturers have not made any advances.

**Ammonium Sulphate**—Stocks are short and prices appear to be going up for material for near shipment. Offerings during the week were limited at \$5.05 f. a. s. New York. Late November and early December deliveries were quoted at \$5.50.

**Bleaching Powder**—Supplies continue light for prompt shipment and in good request at \$2.50 for domestic business.

**Copper Sulphate**—Domestic requirements are limited and both the producers and second hands have a tendency to shade quotations. Standard brands are held at 8 $\frac{1}{2}$ c for the 99 p. c. in car lots.

**Copperas**—Stocks are considerably stronger, being in short supply at \$1.20@1.30 seller's works.

**Fluorspar**—Producers of high-grade material have ceased to quote, owing to difficulty in producing.

**Lead**—Practically all lead products are steady, and prices are firm because of the consistent demand, although the supply of certain items is not up to the de-



mand. White crystals are unchanged at 14c@14½c; broken cakes at 13½c@14c, and the granulated at 13¾c@14c.

**Caustic Potash**—Prices continue firm, and stocks are in none too sufficient supply. Quotations are strong at 28c@32c per pound.

**Carbonate of Potash**—U. S. P. is held at 60c on spot goods which are limited. The various percentages continue to hold high, but buyers are not particularly keen at present levels.

**Permanganate of Potash**—Supplies are scarce on both the commercial and the U. S. P., the latter being in very heavy demand for export at 58c@60c per pound.

**Prussiate of Potash**—Yellow continues easy and reached lower levels during the week. Quotations are named at 39c@42c per pound. Red is unchanged at \$1.05@1.10 per pound, being in short supply.

**Soda Ash**—Offerings are reported at \$1.85@1.90. However, the manufacturer's quotation holds at \$1.75 per hundred pounds for the 58 p. c., basis 48, seller's works. Buying is steady but not in keeping with the supply; \$1.90 in barrels, less 3 to 5 p. c., holds for export business.

**Caustic Soda**—Sales continue to be controlled by the manufacturers who are decidedly firm in quotations. The supply is light, and the market continues under good inquiry and buying pressure for both domestic and export business. Odd lots among second hands are very infrequent, and prices quoted in many instances are higher than those named direct. Domestic deliveries are strong at \$3.48, seller's works. About \$3.50 less 5 per cent, f. a. s. New York, holds on export goods.

**Sodium Bichromate**—Views of holders are firmer, and it is difficult to do better than 13c in any direction. Spot buying is generally confined to limited lots for domestic consumption. Inquiries continue for 1920 delivery, but supplies appear to be well booked for the early part of the year.

**Sodium Prussiate**—Yellow continues scarce on spot and in very good request. However, trading is restricted, because of difficulty in releasing goods at docks. Prices are 24½c@25c per pound.

## SEEKING POSITIONS FOR CHEMISTS

(Special to DRUG AND CHEMICAL MARKETS)

Buffalo, N. Y., Nov. 3.—Niagara Falls chemical plants were recently canvassed by Major Frederick W. Crossett, of the Chemical Warfare Service at Washington, for positions for chemists who gave up their jobs and answered the call when America entered the war. He says that 5,400 chemists were called into service and that many of them are out of work. Ninety per cent of these are college graduates.

Major Crossett said in discussing the present industrial situation that the monetary value of the country's output is greater than ever before, but that the actual physical output is only 80 per cent of what it was just before America entered the war. That is because the hours of work are shorter and so many men are on strike, he says.

The Bayonne Chemical Co., Inc., Bayonne, N. J., is to sell its local plant. The works are equipped with copper stills, filter press, jacketed kettles and tank, complete laboratory equipment, large and small mixer, lead-lined still, with agitators, lead-lined tanks, boilers, drums, carboys and auxiliary operating apparatus. Included in the sale will be quantities of chemicals, including copper oxide and muriatic acid.

## Industrial Chemical Notes

The United Chemical Organic Products Co., New Orleans, will rebuild the structures recently burned at their plant.

The Connecticut Metal and Chemical Co. is building factories at East Berlin, Conn., and has already moved its chemical research department from New Britain to East Berlin.

The Antofagasta Nitrate Co. made net profits of \$22,305,520 in 1918, paid \$11,520,000 in dividends, transferred \$8,000,000 to the oficinas fund and \$2,000,000 to the exploitation fund.

Importations of quebracho extract from Jan. 1 to Sept. 1, according to official statistics, were 53,544,749 pounds against 48,070,898 pounds in the same time in 1918 and 60,477,095 in the corresponding period of 1917.

A cablegram from Marseilles states that a great fire broke out in the American camp at Miramas, Bouches du Rhone. The nitrate depots of the powder works of Saint Chamas, which are relatively near, also caught fire.

The Pacific Whiting Company is preparing to develop property in Amargosa Valley, Nye County, Nev., and to produce calcium carbonate on a large scale. This concern owns an old lake bed which contains a variety of precipitated salts and minerals and will deliver its product at Death Valley Junction, in California.

The Maryland Section of the American Chemical Society elected F. C. Blanck, Maryland Food and Drug Commissioner, chairman; F. M. Boyles, of McCormick & Co., vice-chairman, and Clifford Howes, of the Davison Chemical Company, secretary. Action looking to the formation of a united technical society, composed not only of chemists but of engineers, architects and members of other professions, was taken.

Bryce & Rumpf, of Glasgow, under date of Oct. 6, say: "Business has been quiet throughout the week and deliveries uncertain on account of the railway strike. Quotations—Arsenic, £62 per ton net Glasgow; bicarbonate of soda, 6-8 cwt casks, £9 15s per ton net Glasgow; bicarbonate of soda, 1-cwt kegs, £10 10s per ton net Liverpool; boric acid crystals, English refined, £72 in 2-cwt bags carriage paid; borax crystals, £39 in 2-cwt bags carriage paid; caustic soda, white, 70-72 per cent, £24 per ton net Glasgow; chlorate of potash, 1s 1d per pound net Glasgow; oxalic acid, 1s 4d per pound net Glasgow; sal ammoniac, 1st lump, £80 per ton net any port; sal ammoniac, 2nd lump, £75 per ton net any port; tartaric acid, 3s 3d per pound 5 per cent Glasgow."

Laird & Adamson of Liverpool under date of Oct. 7 say in regard to nitrate of soda: With the disposal of Government owned stocks in the country and sales by the association—now comprising about 85 per cent of the nitrate producers—of 750,000 tons for delivery up to the end of next March at 9s per quintal, the whole aspect of the market has changed. Following on this business, further large orders were refused and resales took place at 9s 3d for ordinary and 2d to 3d per quintal premium for 96 and 1 per cent. The association has now fixed prices for further business up to 500,000 tons at 9s 4d per quintal for delivery up to the end of November and 9s 6d for December onward, with 2d per quintal extra for refined. Freight rates are nominal at about £12 per ton for steamers and £9 for sailers. Exchange is 11 17-32d per dollar."

## The Color and Dyestuff Market

Current Spot Quotations of Colors, Dyestuffs, etc., pages 40 and 42.

### FOREIGN TRADE HURT BY STRIKES

**Domestic Demand for Coal-tar Products Continues Active—Small Stocks of Aniline Oil on Spot—Some Colors are Running Short—Albumen May be Higher Soon**

### PRICE CHANGES IN NEW YORK (Stocks in First Hands)

Advanced	
Phenol, Export, 2c lb.	Turpentine, Spirits, 20c gal.
Declined	
Nutgalls, Chinese 2c lb.	Dextrine, Corn, 50c 100 lbs.

### Trend of the Market

	Today	Last Week	Last Month	Last Year
*Benzol, C.P. .... gal.	\$.34	\$.31	\$.25	\$.24
Naphthalene, flake .... lb.	.06	.06	.06	.09
Phenol .... lb.	.12	.12	.14	.44
Xylol, pure .... gal.	.40	.40	.40	.45
Toluol, pure .... gal.	.26	.26	.24	1.50
Aniline Oil .... lb.	.32	.34	.25	.28
Benzaldehyde .... lb.	.65	.65	.65	3.75
Betanaphthol, dist. .... lb.	.50	.45	.45	.65
Paranitraniline .... lb.	1.00	.95	.95	1.70
o-Toluidine .... lb.	.25	.25	.35	1.00
*Nominal				

Intermediates continue under good buying pressure from domestic consumers, and inquiries from foreign interests help to maintain a firm feeling in trade circles. Foreign shipments are delayed because of the strike, and domestic consumption is absorbing practically the entire output of many products. This prevents manufacturers from offering goods for export. Aniline oil and many of its derivatives are still in strong request for spot and later deliveries. The market on the oil continues to be mostly on contract orders, there being very little material on the local market. Prices are largely nominal, varying considerably, depending upon the holder. However, November and December shipments will, without doubt, be slightly easier, although prices are not expected to drop to any extent. Very little dimethylaniline is available from any source. The market is in a sold-up condition. H acid is easier, the stringency being somewhat relieved. Benzylchloride is quiet. Buyers seem to be waiting for lower prices. Heavy buying continues on gammic acid, paranitraniline, paratoluidine and alphanaphthylamine. Phthalic anhydride is not very active. Holders of betanaphthol are bullish, and offerings are restricted at high figures.

The spot market on the crudes is unchanged. Occasionally a car of benzol is available at prices which are almost prohibitive and is generally located in the West. Naphthalene is strengthening. Phenol is higher for export. The foreign call is strong, but available supplies for export are small. Toluol is obtainable, but not in large quantities.

Logwood and hematine are still in good demand, with the supply a trifle tight. Albumen is likely to be firmer because of the position of the egg in China at the present time. Annatto, cochineal and fustic remain quiet. Archil is nominal and extremely scarce. Dextrine has declined. Starches are holding steady, but far from firm. Turpentine is extremely scarce and is held by one or two factors who are asking sky-high prices.

Domestic colors continue in strong request, and a shortage is felt on certain shades. Very little imported goods are obtainable at the present, owing to the congested conditions at the wharfs. The demand is greater than the supply on certain imported shades, and it is doubtful if the stringency can be relieved this year.

### Intermediates

**Acid H**—Plenty of action materialized during the week on spot goods. The supply is slightly easier, and offerings are somewhat freer at \$1.50@\$1.60 per pound.

**Acid, Sulphanilic**—The market continues firm, and buying is large at 25c for the crude and 35c for the refined material.

**Aniline Oil**—Very little oil is being offered for spot shipment. However, the supply for November-December is slightly easier among producers. Early November delivery was held at 32c@33c on car lots. The market is firm, and this tendency is expected to hold.

**Aniline Salt**—Prices are largely nominal, owing to the scarcity of supplies. Quotations are unchanged at 54c for contract and 36c for spot goods.

**Para-Amidophenol-Base**—This market appears to be in a sold-up condition and decidedly strong at \$2.75 per pound. Inquiries are heavy, but sales are restricted because of the shortage.

**Benzidine Base**—Offerings are lighter and the market is stronger. Export inquiries from the Orient are coming through, and domestic business is large. Prices are held at \$1.10@\$1.25 per pound, depending upon holder.

**Diethylaniline**—Buyers are inactive, and very little spirit is in evidence. Quotations are in the neighborhood of \$1.35 per pound.

**Dimethylaniline**—Spot material continues extremely scarce, with prices for the most part nominal at 59c per pound. Export business is neglected.

**Gammic Acid**—Prices are higher at \$2.75 among second holders. The export inquiries are stronger, and considerable domestic business is being placed with producers at \$2.50.

**Betanaphthol**—Large quantities, which are scarce, are held at 50c per pound. Very little material is in the hands of second holders, and producers are holding prices firm at 45c@50c per pound. The demand is heavy both for domestic and export deliveries.

**Alphanaphthylamine**—The market is strong and under good buying pressure, especially from the Orient. Quotations are unchanged, but firmer at 32c@34c per pound.

**Paranitraniline**—Ton lots are held at \$1.00 on foreign shipments. The supply is sufficient, but none too large to fulfill the present requirements. Less quantities are named up to \$1.10.

**Paraphenylenediamine**—Good buying interest is reported, with prices ranging from \$2.50@\$2.75, depending upon quantity.

**Paratoluidine**—A good deal of interest is centered on spot goods, which are beginning to materialize in better quantities. Holders are making contracts at \$1.75. However, spot business has passed at this figure and up to \$2.00, depending upon holder.

### Coal-Tar Crudes

**Benzol**—There is practically nothing available in the

open market, everything going on contract requirements. The demand is strong, and prices for spot goods are prohibitive. The 90 p. c. material, rolling from the West, was named at 34c per gallon, New York, drums extra. Buyers are in need of the goods, but quotations are a little too high to be inviting.

**Naphthalene**—Both the ball and the prime flake are moving in good quantities. Quotations are unchanged at 6c for the flake and 8c for the ball in carlots. Off color material is quoted at 4c per pound.

**Phenol**—Export prices are higher at 18c@19c for ton lots, which are scarce on the open market. The inquiries for foreign shipments are large, but present price levels are not inviting to buyers. Domestic business continues strong at the fixed levels in first hands. Second hands are stronger on small packages.

**Toluol**—Spot material is limited. Export inquiries are large, but very little is available for export. Domestic business on spot is high, and the contract price holds at 25c for car lots.

#### Dye Bases and Dyewoods

**Albumen**—First hands are very bullish as to prices, owing to the strong position of the Chinese market. Reports point to a much stronger and higher market in the near future. Odd lots are being offered at \$1.65 and \$1.70 among certain holders. However, the material held in strong hands is not available under \$1.90 in quantities. The egg at the present time is held at \$1.60 in the Chinese market.

**Annatto**—Supplies continue heavy, owing to the prolonged inactivity of buyers. Very little material is coming in. Quotations on the seed range from 5c@7½c per pound, and the fine is named at 30c@32c.

**Archil**—Lack of shipping facilities delay arrivals at this port. The spot material has been cleaned up, and shipments to arrive are booked ahead. The price is largely nominal.

**Cochineal**—Very little interest is manifested by consumers, and the market is sluggish. Supplies are heavy at prices ranging from 62c@74c per pound.

**Cutch**—The market is firm and under good inquiry for the little material available. Rangoon is strong at 16c@18c; liquid at 12c@14c, and the tablet at 14c@15c.

**Cudbear**—The market is unchanged. Both the supply and demand continue limited.

**Fustic**—Trading in extracts is very light, and the market is a shade easier.

**Hematin**—Good buying continues at the advanced level recorded in last week's report. The market is strong at 12c for the 51-degree extract and 27c for the crystals.

**Starches**—Powdered is now held at \$5.35 per hundred pounds and the pearl at \$5.20. The market is steady, but not exceptionally firm. Potato starch is lower, being quoted at 8½c@9c per pound.

The United States Industrial Alcohol Co., 27 William Street, New York, has awarded a contract to the George A. Fuller Company for the construction of four factory buildings at Sixth Street and Fourth Avenue, Stone House Cove District, Fairfield, Md., to be devoted to the production of alco-gas. The cost is estimated at \$200,000.

Guy Leonard, general manager of the American Cellulose & Chemical Manufacturing Co., Ltd., Cumberland, Md., left New York on Oct. 27 on a business trip to England. It is understood that Mr. Leonard will confer with Dr. Camille Dreyfus, president of the company, regarding the expansion of the local plant.

### Dyestuff Notes

The Superior Dye Works, 37 Moultrie Street, Brooklyn, N. Y., has completed plans for the erection of a one-story brick plant, about 35x60 feet, to cost \$10,000.

Importations of cyanide of potash from Jan. 1 to Sept. 1 1919, according to official statistics were 649,673 pounds against 141,808 pounds in the same time last year and 104,204 in the corresponding period of 1917.

The Chemical Co. of America has sent to all United States Senators a copy of **DRUG & CHEMICAL MARKETS** of Oct. 22, calling to their attention the editorial headed "Penny Wisdom of License Opposition."

Consul General Hollis has cabled from London, Oct. 22, that a concession has been obtained modifying the prohibition against the importation of dyes into India. This concession permits the free entrance of non-enemy dyes ordered prior to Sept. 6, and shipped before Jan. 1.

The protest of F. Bredt & Co., New York, against the classification of acacia catechu cutch under paragraph 30, tariff act of 1913, and dutiable at three-eighths of one cent per pound, and claiming that the product should be admitted free under paragraph 385, was over-ruled by General Appraiser McClelland.

A delegation of dyestuff and color manufacturers and consumers went to Washington last week and appealed to the Senate Finance Committee for early action on the Longworth bill and the dye licensing system. Among the delegates were W. H. Cottingham, of the Sherwin-Williams Co.; Francis I. duPont; Elvin H. Killheffer, Newport Chemical Works; and Daniel Waters, president of the Philadelphia Master Dyers Association.

Mail advices received from Manchester, England, said of tar products: "The market for the tar products is rather quiet, and that fact that many of them will again be subject to the wretched licensing system, so far as export is concerned, does not improve matters. Exporters might test the legality of these outrageous interferences with our freedom nearly a year after the war has practically ended. Pitch is very firm here, but there does not seem to be much actual business doing, and holders do not appear to be anxious to sell. The nominal price here is 68s 6d to 70s per ton free alongside."

#### BENZOL OUTPUT IN SPAIN

Before the war the production of benzol in Spain amounted to 1,150 tons annually, but during the past four years new installations for obtaining benzol have been made, so that in 1918 some 2,000 tons were produced. Two benzol factories now under construction will be able, together, to produce 800 tons. Of the present production of benzol 600 tons are taken by the Ministry of Supplies for domestic needs and paid for at a fixed price, the remainder being sold on the market, principally for motor-car use. Last November a plant for obtaining benzol from the coke furnaces of Sestao began operations, though its output did not greatly influence the production in 1918; but with this and the other new installations the benzol to be obtained in 1919 will probably amount to 3,000 tons. This quantity is about one-tenth of that required by the automobiles of Spain, and there are projects to increase the production of benzol extensively.



## The Oil Market

Current Spot Quotations of Oils, Page 42; Tallow, Greases, etc., Page 43.

### CONSUMERS' OIL STOCKS LOW

**Lack of Shipping Facilities Has Prevented Deliveries**  
—Fish Oils Strong, Especially Menhaden and Newfoundland Cod Oil—Cottonseed Oil Firm and in Active Demand

### PRICE CHANGES IN NEW YORK (Stocks in First Hands)

**Advanced**  
Cochin, Domestic, bbls.,  $\frac{1}{4}$ c lb.  
Cod., Newfoundland, 5c gal.  
Peanut, Refined,  $\frac{1}{4}$ c lb.

**Declined**  
Coconut, Manila, tanks, coast  
 $\frac{1}{4}$ c lb.  
Palm, Lagos, casks,  $\frac{1}{4}$ c lb.

### Trend of the Market

	Today	Last Week	Last Month	Last Year
Cod Oil, N. F.	\$1.20	\$1.15	\$1.15	\$1.55
Degras, Amer. bbls.	.07 $\frac{1}{2}$	.07	.07 $\frac{1}{2}$	.24
Lard, No. 1	1.35	1.35	1.45	1.50
Menhaden, South, crd.	.85	1.07	1.15	1.20
Neatsfoot, 20 deg. c.t.	2.25	2.25	2.25	3.19
Red Oil, Crude	.17	.17	.19	.17 $\frac{1}{2}$
Stearic Acid, T. P.	.30	.30	.31	.25
Coconut, Ceylon, dom. bbls.	.18	.18	.19	.17 $\frac{1}{2}$
Cottonseed, crude, tanks*	.19 $\frac{1}{2}$	.19	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$
Linseed cars, bbls.	1.72	1.72	2.22	1.57
Olive, denatured	2.50	2.50	2.50	4.80
Peanut, refined	.26	.25	.27	.22 $\frac{1}{2}$
Soya Bean, bbls.	.18	.17 $\frac{1}{4}$	.19	.18

\*F. O. B. Mills

The vegetable oil market as a whole remained quiet and steady, and prices are firm. November will probably see more activity on the part of consumers. Lack of shipping facilities still prohibits deliveries, and this fact tends to keep the stocks of the consumers low. Second hands are unloading to a certain extent at levels slightly under the market. Cochin is slightly higher, being in better call. Cottonseed is decidedly firm, owing to the active demand and the fact that the later crop in the South is reported to be of inferior quality. The demand for palm is steady. Peanut oil is stronger because of the shortage of the crude. Soya bean is holding firm. Manila is at lower levels.

Animal oils are for the most part firm. The demand continues limited. The majority of sales are scattered in small parcels which are mostly for domestic requirements. Fish oils are slightly stronger. Menhaden is stronger. Newfoundland cod oil is higher, following the strength of the crude. Refined is steady, and the market is in good shape.

### Vegetable Oils

**China Wood Oil**—Spot goods in barrels are quoted at 22 $\frac{1}{2}$ c@23c f. o. b. Pacific Coast. The market is decidedly firm, owing to the stronger movement of supplies.

**Coconut Oil**—Buying continues limited, and the market, as a whole, is very quiet. The strength of the market is hard to determine because of its vacillation. Domestic Ceylon in barrels is unchanged at 18c@18 $\frac{1}{2}$ c and 17 $\frac{1}{4}$ c@18c for tanks. Cochin has firmed up, and is stronger at a slight advance on domestic barrels which are 19 $\frac{1}{4}$ c@20c while 18 $\frac{1}{4}$ c@19c continues to be the nominal price for tanks. Manila tanks, Coast, is slightly off, being somewhat easier at 17c@17 $\frac{1}{4}$ c.

**Cottonseed Oil**—Crude, f. o. b. mills, in tanks, is slightly stronger for spot at 19 $\frac{1}{4}$ c@20c. Spot goods

on prime yellow continue firm at 23c owing to the scarcity. Winter yellow is still nominal at 23 $\frac{1}{4}$ c@25c. There is a very bullish attitude in evidence owing to the demand for quick deliveries on the crude in the South. This attitude is expected to hold because of the poor crop for later shipment.

**Linseed Oil**—The demand during the week has been largely confined to January business which is quoted at \$1.52. However, November-December deliveries are light at \$1.72 for car lots and up to \$1.78 for single barrels. There is still a scarcity of spot material, and crushers have been in the market for English and Dutch oil, the latter being held at \$1.62, ex-dock. In Buenos Aires, the seed was firmer at \$2.69, and Duluth showed an advance of 2 $\frac{1}{2}$ c. Winnipeg was also slightly higher.

**Peanut Oil**—Owing to shortage of the crude and the strong movement of spot goods, refined showed an advance of 1 $\frac{1}{2}$ c a pound, being quoted at 26c@28c. Domestic crude at mills is unchanged at 22c@22 $\frac{1}{2}$ c; Oriental in tanks on the Coast at 22c.

**Soya Bean**—In some directions holders are quoting higher at 16 $\frac{1}{2}$ c@16 $\frac{3}{4}$ c for tank material on the Coast and 18c@18 $\frac{1}{2}$ c for spot goods in barrels held in New York. However, prices are lower in certain sections where the material is easier. Supplies are moving strongly and are not particularly large.

### Animal and Fish Oils

**Cod Oil**—Newfoundland is higher and scarce at \$1.20 per gallon. First hands have little material to offer, and quotations are largely nominal. Future prices are likely to be higher, owing to the strong position of the crude. Domestic prime is held at \$1.10 @ \$1.15 and Norwegian at \$1.30 in barrels.

**Degras**—The market is slightly stronger, and supplies are in steady call. About 7c@7 $\frac{1}{2}$ c is named on the American; 8c@8 $\frac{1}{2}$ c for the English, and 14c@18c for the Neutral.

**Lard Oil**—Prime oil is holding at \$1.80@1.85 per gallon. The off prime material at \$1.70; extra No. 1 at \$1.45; No. 2 at \$1.25, and regular No. 1 at \$1.35. Prices are steady, with the demand limited.

**Stearic Acid**—Single pressed is slightly easier at 23c. Double is unchanged at 28 $\frac{1}{2}$ c, and the triple pressed at 30c@31c.

**Menhaden Oil**—Menhaden oil is in a strong position. The fishing season has been rather poor, and the demand has practically cleaned up the market on the Northern crude. Southern is in limited supply, and the present demand is sufficient to hold the market in good shape. Offerings on the Southern are still made at 85c per gallon and the Northern material at 90c. Yellow bleached is holding at \$1.22; light strained at \$1.20, and white winter bleached at \$1.24.

There are in Japan 6 principal rapeseed oil factories—the Settsu Seiyu, Notogawa Seiyu, Otaya Seiyu, Nippon Seiyu, Yokkaichi Seiyu and Osaka Kagaku Hiryo Kaisha, the total output amounting to 50,000 boxes per month, according to "Eastern Commerce."

The B. J. Johnson Soap Co., Milwaukee, Wis., has had plans prepared for the construction of a new four-story reinforced-concrete plant, to be located at Fourteenth and Marion Streets, Long Island City, N. Y.



**NEW FOOD OIL FROM GRAPE SEED**

A new food oil is being derived from the grape. It is pressed from the seeds which formerly were discarded. This recently discovered by-product has been tested by scientists who say that it is edible and nutritious and may become a rival of olive and cottonseed oils for cooking and for salad dressing. The news has given comfort to growers of the vine in California, Ohio and New York State as the preparation of the oil on a large scale may increase the profits from grape juice. Even after the oil has been pressed out the residue of the seeds is found to be of value as a feed for animals.

Dr. J. H. Shrader, who is connected with the Bureau of Plant Industry, of the U. S. Department of Agriculture, has made extensive investigations in the commercial utilization of grape seed. In a paper read before the Division of Industrial Chemists and Chemical Engineers, of the American Chemical Society, he suggested that all waste of this character from the vineyards and canneries be assembled at a center, so that there will be enough tonnage to make its fabrication profitable.

"In the grape-juice industry," he says, "the grapes are pressed in ordinary cider presses to obtain the juice. The skins, seeds and pulp remain behind in the cloths. The total tonnage of grapes pressed for juice in the grape belts of New York, Ohio and Michigan, was ascertained directly from the firms for each of the past five years in order to strike a fair average. From these figures, a pomace yield of 20 per cent was calculated which in turn yielded one-quarter seed, one-quarter dry skins, and one-half water.

"A method has been worked out and operated in the laboratory on a semi-commercial scale whereby grape seed can be separated from wet grape pomace without recourse to drying. The seed separation will enable the producer to take out his seed from the balance of the waste at each pulping and pressing station. This makes him independent of the necessity of shipping all of his waste to the central plant, when freight rates make such shipment prohibitive."

Because of the shortness of the grape-juice pressing season which lasts from September to November, this well-known agricultural chemist has estimated on a plant only large enough to dry the maximum amount of seed and then press it in winter months. He calculates that a charge of \$9 per ton of raw material is allowed for drying and handling from freight cars to storage bins, while \$15 to the ton of dry grape seed is allowed for expelling the oil and handling from the seed storage to the oil in tanks. This would include all overhead and management charges, except rent of property or interest on real estate investment.

Dr. Schrader believes that the efficiency of these plants could be increased by also extracting the oil from the seeds of tomatoes, as a great many such seeds are rejected in the making of catsup and in canning. Seeds from pumpkins and those from other vegetables can also be utilized.

**NEW DRUG AND CHEMICAL COMPANIES**

Twenty-eight companies with an authorized capital of \$50,000 or greater were organized during October for the manufacture and distribution of chemicals, drugs and dyes, involving a total authorized capitalization of \$7,883,000. The indicated investment represents an increase as compared with \$2,760,000 in October a year ago and with \$6,022,000 in October, 1917. Both in point of the number of companies organized and in the authorized capital involved the October record also exceeds that of September last, when twenty-two companies with an aggregate authorized capital of \$6,100,000 were formed.

**The Oil Markets**

The Louisville Oil Mill Co. will rebuild its burned seed storage house at Louisville, Ga.

According to a report from Bergen the exports of cod-liver oil from Norway up to the end of August amounted to 17,500 barrels.

Experiments in shipping coconut oil East in refrigerator cars have been made by San Francisco operators, and these have been so successful that the plan will be adopted in all shipments not made in tank cars. This plan will enable shipments to be made in barrels, just as they come from the Orient.

The British Board of Trade announces that from Oct. 23, the export embargo on all edible oils, except coconut oil, groundnut oil and palm kernel oil has been removed. The exportation of these three oils remains prohibited to all destinations except under license from the Export License Department, Queen Anne's Gate Building, London.

San Francisco imports during the third week in October included the following: On the Georgina Rolph from Iquique, 5 barrels of borax, 2,050 sacks of cocoa and 464 sacks of glue stock; on the Newport from Balboa, 13 cases of indigo; to Burns, Philp & Co. 542 tons of copra from Fau and 1,297 tons from Nukualofa; to Struthers & Dixon 2,800 tons of copra from Manila, and to Wolff, Kirschmann & Co., 838 tons of copra from Levuka.

**NETHERLANDS' TRADE IN OIL SEEDS**

Imports of oil seeds into the Netherlands in the first half of 1919 equaled only 7.5 per cent of those for the first half of 1914. The Dutch East Indies supplied 50.9 per cent of the copra imported, and Great Britain the remaining 49.1 per cent. Argentina sent 84.6 per cent of the linseed imported, Germany 2.6 per cent and Belgium 1 per cent. Forty-four per cent of the palm nuts imported came from British West Africa, 28.6 per cent from the Belgian Congo, and 27.2 per cent from Belgium. Of the imports of peanuts, Portuguese West Africa supplied 53.2 per cent, French West Africa 26.2 per cent, Belgium 8.5 per cent and Great Britain 2.4 per cent. Ninety-eight per cent of the rapeseed imported was of Belgian origin.

The shortage of oil seeds in the Netherlands was partly made up by imports of vegetable oils. The Dutch East Indies supplied 55.5 per cent of the coconut oil imported, Great Britain 22.9 per cent, the United States 13.3 per cent and British India 8 per cent. Seventy-four per cent of the cottonseed oil came from the United States.

**COMPANY ROBBED OF DYES**

The Williamsburg Chemical Co. has caused the arrest of John Delano on a charge of grand larceny. He was held for further examination on Nov. 6. The company has been missing large quantities of dyes amounting in value to over \$10,000. Detectives say they found packages of dyes in Delano's rooms in Manhattan. His alleged accomplice was turned over to the Federal authorities on a charge of using the mails for fraudulent purposes. It is said that he was writing to persons on the letterheads of three bogus express companies, telling them that by forwarding express charges they would receive packages addressed to them.

## The Foreign Markets

Imports of Drugs, Chemicals, Dyestuffs, etc., pages 43 and 44.

### LIVERPOOL GETS 675 CASES QUININE

**Camphor Still Going Up—Menthol, Saccharin and Bleaching Powder Higher—Germans Deny Having More Than "Moderate" Quantities of Chemicals and Dyes**

London, Nov. 3.—The Government still retains control of quinine and the situation is unchanged. About 675 cases of quinine sulphate from Java arrived at Liverpool this week.

Special reports from Germany are to the effect that beyond the quantities of chemicals and dyes demanded under indemnities only moderate quantities are available for general export. Several plants have been closed for three weeks now owing to scarcity of coal.

Camphor is still tending upward. Menthol, saccharin and bleaching powder are higher.

There is a firmer tone in cloves, cream tartar and hexamine.

Acetic and oxalic acids and star anise oil are easier.

Linseed oil and sulphonal are lower.

London, Oct. 20 (By Mail).—Our markets are already beginning to show a brisker tone in consequence of the settlement of the railway strike. There is also a prospect of considerable relief to the congestion of goods traffic on the railways and at the docks by the employment of Government lorries, the announcement of which by the Ministry of Transport has been received with much satisfaction by the business community. The fall in the price of quicksilver to £19 10s per bottle has been followed by a reduction of a further 3d per pound on mercurials. Calomel is now quoted by the makers at 6s 10d; corrosive sublimate, 6s 4d, and white precipitate, 7s 5d per pound.

Anise oil, star, is dearer, spot sales of "Red Star" having been made up to 5s 9d per pound.

Atropine sulphate, B. P., has been reduced and is now quoted at 40s per ounce net. and the pure alkaloid, 50s per ounce net.

Bromide potash is still scarce, and present value is quite 4s 3d per pound, but supplies are said to be expected very shortly.

Camphor, refined, is firmer, Japanese slabs having been sold at 15s 6d per pound.

Chamomiles, Belgian, of new crop are coming in gradually, being quoted at 190s to 195s per cwt, according to color.

Cinchona bark (475 bales) was offered at auction here, but less than a fourth was sold. Prices were, however, steady.

Cloves have advanced to 2s 2d for fair Zanzibar.

Clove oil, English distilled, is now 18s per pound.

Ergot of rye is unobtainable on spot, but a parcel of Portuguese to arrive is offered at 14s per pound, c. i. f. Gentian root is easier, at 45s to 50s on spot.

Ipecacuanha is maintained at 14s per pound for Matto Grosso.

Jalap resin is lower, makers offering at 29s per pound, and powder at 30s 6d per pound.

Liquorice juice, best quality Spanish or Italian, is now worth 280s per cwt.

Liquorice root, good decorticated, is very scarce, and Sicilian to arrive is quoted at 200s per cwt., c. i. f.

Pimento is firmer, with sellers at 5½d per pound.

Senega is very firm at 8s 9d to 9s per pound.

### USE OF DYES IN TURKEY

There is only one modern dyeing establishment in Turkey. This is the factory of the Oriental Carpet Manufacturing Co. (a British concern) in Smyrna, where yarn is dyed to be afterwards woven into carpets on contract. The Government textile factories generally maintain dyeing departments of their own, as for example, the factory in Hereke (wool and silk), the Fezlane in Eyub on the Golden Horn (wool and cotton), the Makrikoi mill (cotton), etc. Small dyeing shops are to be found in numerous places in Asia Minor, particularly in those regions where carpet weaving is the principal occupation of the people.

The dyeing is usually a primitive process performed by the master himself with the aid of a few journeymen, in copper kettles over a free fire. Synthetic dyes of German manufacture are generally employed, but natural indigo still predominates over the artificial product. In Aleppo alone there are 60 special shops for indigo dyeing, besides 20 other dyeing shops and 8 cotton-printing establishments. The small dyers in Constantinople confine themselves to the dyeing of clothing. Special mention should be made of a German establishment in Constantinople which includes dyeing works with mechanical power and a chemical laundry.

The industrial census mentions a "paint factory" at Constantinople, but the alleged factory is a very small establishment where oil paints are mixed, sealing wax and blacking prepared, and similar materials handled on a small scale.

### TURKEY'S COTTONSEED OIL OUTPUT

As late as 1914 Turkey imported more than 8,000 tons of cottonseed oil. It can be expected, however, that before long Turkey will produce cottonseed oil in sufficient quantities at home. There are two modern oil mills in the important cotton-growing district of Adan Mersina, and two others in Smyrna. One of the latter, originally an American enterprise, has a productive capacity of 2,800 tons of oil. This factory has been purchased by a Hungarian company. The Hungarians are showing considerable interest in Turkish industrial opportunities, and the Turks give them preference over others, owing to the racial relationship.

Flax, poppy and hemp are largely grown in Turkey, but the seeds are hardly ever pressed for oil. As nearly 900 tons of linseed oil are imported annually, the manufacture of linseed oil ought to prove profitable.

### PRICES IN OSAKA

Osaka, Japan, Sept. 18.—There is some buying for the winter season which brings activity on special materials, but in general the market is quiet. Owing to import difficulties the clove market is high and firm with the price at yen 135 per 100 kin.

Quinine hydrochloride stocks are scarce and prices advanced to yen 2.70 per 25-gram can. For the season the demand for resorcin is very active with the price as high as yen 20 a pound. This material will surely go up. Bismuth is advancing with the price at yen 8.30 to yen 8.40 a pound at present. Gum arabic stocks are small, and the price has advanced to yen 58 per 100 kin.

**NEW ZEALAND'S KAURI-GUM TRADE**

The kauri-gum industry of New Zealand experienced a very depressing year during 1918 owing to a shortage of gum diggers and the difficulty in securing shipping space to export the small supplies. The exports for 1918 were valued at \$765,564, as compared with \$1,651,413 for 1916, and \$2,420,811 for 1914; which means that the actual exports dropped very much below normal, since prices were higher than formerly. Prospects for 1919 are not promising, for a large number of the gum diggers have been set to work on the railways and other Government construction work.

A new branch of the industry is being opened up by way of extracting kauri oil from the kauri-gum peat taken from the swamps where large quantities of decayed gum are found mixed with the soil, or in some places almost solid beds of shale gum. It is claimed that there are areas from which kauri oil may be extracted to the value of \$121,663 per acre. A company is now manufacturing 100 barrels per week, and proposes to enlarge the plant as soon as possible. About 15 per cent of the oil can be easily turned to motor spirit; about 15 per cent to an oil used in working up india-rubber; about 30 per cent in paint oil; the same amount in varnish oil, and the remainder in pitch. It is expected this industry will become an important factor in the Auckland province.

**Foreign Trade Opportunities**

The Department of Commerce, Washington, D. C., has received the following inquiries for drugs, chemicals and accessories. Reserved addresses may be obtained from the Bureau and its district and cooperative offices. Request for each opportunity should be on a separate sheet and state opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases.

30937—A company in Denmark desires to be placed in communication with manufacturers of soda products, borax and boracic acid, gelatine and glue, paints, like zinc oxide, lead oxide, lithopone; mineral colors; fertilizers, metals, and rare metals; also pharmaceutical chemicals. Payment cash against documents. References.

30999—A merchant in Italy desires to secure an agency from manufacturers of chemical products for industrial purposes. Correspondence should be in Italian or French.

31036—A commercial agent in Belgium desires to secure an agency or consignment of toilet and laundry soaps and toilet articles. Quotations should be given c. i. f. Antwerp. Terms, payment against documents. Correspondence should be in French. Reference.

31046—An American firm desires to purchase for a customer in Spain a complete plant for the manufacture of peroxide. The Spanish firm desires also to get in touch with manufacturers of carbonic gas and machinery for the manufacture of same. References.

31058—A firm in Argentina desires to get in touch with exporters of industrial chemicals used in the manufacture of soap, candles, tanning materials, and especially palm oil, precipitate of sulphur, salicilate of soda (140 degrees, very white), caustic soda, bicarbonate of soda, chloride of lime, resin H, carbonate of potassium, talcum, caustic potash and tar. Quotations should be given c. i. f. Buenos Aires. Payment, cash against documents in Argentina. References.

**ENGLAND'S STOCKS OF SEED OILS****Heavy Arrivals of Soya Bean Oil Afforded Relief When Linseed Prices Went Up—British Crushers Watching North American Oilseed Crops—Oil Prices**

London, Oct. 10.—Linseed oil in London now stands at £83 per ton, and in Hull at £76. Crude rape oil is now £100, against £112 at the end of July, while crude cottonseed oil is now down to well below £90 against £117 late in July, according to a recent issue of the "Chemist and Druggist," which says: A glance at the Board of Trade Returns shows that the accession of supplies from India and the River Plate has assumed more regular and more adequate dimensions. Various other important factors have certainly been at work whereby the quick downward movement has been accelerated. The fact that quite large quantities of soya bean oil, as well as the raw product, already made their appearance last month, afforded some relief as a substitute at comparatively low prices.

Up to the end of July arrivals of well over 10,000 tons of soya oil took place, and the total by the end of August swelled to 12,566 tons, this comparing with only small quantities for the same period of the two previous years. This quantity constituted practically the first arrivals for about two years, or since the cessation of the imports caused by the submarine scourge. It is understood that further large quantities of soya beans are now afloat, and soya oil, too, bids fair to come along in increasing quantities.

The most striking feature is the big increase in linseed to 1,611,982 quarters, against 741,402 quarters and 770,493 quarters respectively in 1918 and 1917. The special efforts which have been made in speeding up the despatch of the balance of the River Plate crop have undoubtedly done much to dissipate fears of a serious shortage of supplies pending the advent of the new crop there at the end of this year.

It now remains to be seen how the North American crops close at hand will turn out, but, in the meantime, crushers are not keen in anticipating their forward requirements in a sharply weakening and dislocated market.

In regard to cottonseed, the increased receipts from India came in useful pending the new Egyptian crop movement. The August receipts of rape seed from India were also considerable, and made a total of 231,342 quarters for the eight months ending August, against 131,055 quarters for the corresponding period of 1918. The fall in seed prices will presumably proceed still further, although fluctuations must be expected. For the present, however, crushers are extremely reserved.

**MARKET FOR DRUGS IN TURKEY**

(Special to DRUG AND CHEMICAL MARKETS)

Washington, D. C., Nov. 3.—Turkey offers a good field to the exporter of drugs and chemicals, as it imports more than \$4,000,000 worth of chemicals, drugs, dyes, medicines and tanning materials annually, according to a report prepared by the research division of the Bureau of Foreign and Domestic Commerce. In pre-war days, France and Germany supplied over 40 per cent of the total, while trade of the United States with Turkey has been negligible.

The country can boast of only one large establishment in the chemical industry, the Government-owned munition factory at Makrikoi, near Constantinople. The factory employs between 500 and 600 workmen and manufactures not only munitions but also various intermediate and auxiliary products, particularly sulphuric acid, nitric acid, alcohol and ether.



# Prices Current of Fine and Heavy Chemicals, Drugs, Essential Oils, Dyestuffs and Oils

**NOTICE**—The prices herein quoted are for large quantities in original packages. All prices are quoted on a basis of avoirdupois pounds and ounces and American gallons. Where the price of a product is indicated by two sets of figures separated by a dash (.16 — .19), it means that various manufacturers or importers of the item quote different prices which are all included within this range.

For the ready reference of foreign buyers, the following table of equivalents is published:

1 Imperial Gallon (Brit.)	— 1.20 Amer. Gallons
1 American Gallon	— .833 Imperial Gallon
1 American Gallon	— 3.79 liters
1 Liter	— .264 American Gallon
1 American Gallon (H <sub>2</sub> O) weighs	8 pounds
1 Pound (Avoirdupois) weighs	.454 kilogram
1 Kilogram weighs	2.20 pounds (Avoirdupois)

## Fine Chemicals

Acetanilid, C.P., bbls., blk.	.48 — .50
Acetone	.1345 — .15
Acetphenetidin	2.40 — 2.50
Aconitine, Sulph., ¼-oz. vials	— —
Adapa Lanae, hydrous	— .30
Anhydrous	— .26
Alcohol 188 proof	4.70
190 proof, U.S.P.	4.75
Cologne Spirit, 190 proof	5.00
Wood, ref. 10 p.c.	1.80 — 1.85
97 p.c.	1.58 — 1.83
Denatured, 180 proof	.56 — .59
188 proof	.60 — .63
Aldehyde	1.25 — 1.45
Aloin U.S.P., powd.	1.00 — 1.05
Ammonium, Acetate, cryst.	.65 — .70
Benzoate, cryst., U.S.P.	4.00
Bichromate, C. P.	.95 — 1.00
Bromide, gran., bulk.	.65 — .66
Carb.Dom.U.S.kegs, powd.	.12 — .124
Chloride U.S.P.	.24 — .25
Hypophosphite	2.10 — 2.15
Iodide	— 4.85
Molybdate, Pure	— 4.15
Nitrate, cryst., C. P.	.25 — .26
Gran.	.54 — .55
Oxalate, Pure	.83 — .85
Persulphate	.95 — 1.05
Phosphate (Dibasic)	.50 — .60
Salicylate, U.S.P.	.95 — 1.00
Amyl Acetate, bulk, drums	3.65 — 3.75
Antimony Chlor. (Sol. butter of Antimony)	.18 — .20
Needle powder	.09 — .11
Sulphate, 16-17 per cent free sulphur	.35 — .74
Antipyrine, bulk	4.70 — 4.90
Apomorphine Hydrochloride	— 26.80
Argols	.08 — .11
Arsenic, red	.23 — .25
White	.10 — .104
Aspirin	.80 — .95
Atropine, Alk. U.S.P., 1-oz. v.oz.	— 30.00
Sulphate, U.S.P., 1-oz. v.oz.	17.00 — 18.00
Barbital	— 2.25
Barium Carb. prec., pure	.28 — .29
*Chlorate, pure	.50 — .60
Bay Rum, Porto Rico	— 3.18
St. Thomas	— 3.18
Benzaldehyde (see bitter oil of almonds)	— —
Benzonaphthol	4.25 — 4.50
Berberine, Sulphate, 1-oz. v.oz.	2.50 — 3.00
Bismuth Ammon. Citr., U.S.P.	— 5.80
Citrate, U.S.P.	— 3.60
Oxide, pd.	— 3.90
Oxychloride	— 3.65
Salicylate	4.70 — 4.75
Subbenzoate	— 3.30
Subcarbonate, U.S.P.	— 3.30
Subgallate	— 3.30
Subiodide	— 5.45
Subnitrate	— 3.00

\*Nominal.

Bismuth Subsalicylate	— 3.60
Tannate	— 2.80
Borax, in bbls. crystals	.0745 — .08
Crystals, U.S.P., Kegs.	.08 — .084
Bromides, See Potass. Brom., etc.	— —
Bromine, tech., bulk	— .55
Cadmium Bromide, crystals	1.75 — 1.80
Iodide	— 4.40
Metal sticks	1.40 — 1.45
Caffeine, alkaloid, bulk	7.25 — 7.75
Hydrobromide	8.50 — 9.00
Citrate, U.S.P.	6.00 — 6.25
Phosphate	10.00 — 11.00
Sulphate	9.50 — 10.00
Cadmium Bromide, crystals	1.75 — 1.80
Calcium Glycophosphate	.70 — 1.75
Iodide	— 4.60
Phosphate, Precip.	.21 — .23
Sulphocarbonate	.85 — .90
Calomel, see Mercury	— —
Camphor Am. ref'd bbls. bk. bk.	— 3.30
16's in 1-lb. carton	— 3.75
24's in 1-lb. carton	— 3.75
32's in 1-lb. carton	— 3.75
Japan refined, 2½ lb. slabs	— 3.79
Monobromated, bulk	— 5.00
Caramel	1.05 — 1.10
Casein, C. P.	.15 — .16
Castor Oil, AA bbls.	— .21
Cerium Oxalate	.74 — .78
Heavy	.04 — .06
Chloral Hydrate, U.S.P. crystals, drums incl'd 100lb. lots	— .95
Chloroform, drums, U.S.P.	— .30
Chrysarobin, U.S.P.	— 4.00
Cinchonidin, Alk. crystals	1.26 — 1.26
Cinchonine, Alk. crystals	.74 — .74
Sulphate	— .45
Citrates, See Iron Citrate, etc.	— —
Cocaine, Hydrochl. gran.	— 9.50
cryst., bulk	— 9.75
Cocoa Butter, bulk	— .47
Cases, fingers	.50 — .52
Codeine, Alk., 10-oz. lots	— 11.45
Nitrate	— 10.30
Phosphate	— 8.66
Sulphate	— 9.15
Cod Liver Oil, Newf'd.	— 90.00
Norwegian	— 130.00
Collodion, U.S.P.	.35 — .37
Corrosive Sublimated, see Mercury	— —
Coumarin, refined, see Aromatic	— —
Cream of Tartar, cryst. U.S.P.	.53 — .55
Powdered, 99 p.c.	.53 — .55
Creosote, U. S. P.	1.25 — 1.30
Carbonate	6.00 — 6.25
Cresol, U.S.P.	.22 — .25
Dionin, See Morph. Ethyl Hydrochl.	— —
Dover's Powder, U.S.P.	2.80 — 3.00
Emetine, Alk., 15 gr. vials	— 2.00
Hydrochloride, U.S.P.	32.00 — 33.00
15 gr. vials	— 1.35
Epsom Salts, see Mag. Sulphate	— —
Ether, U.S.P., Conc.	— .17
Washed	— .26
Nitrous, conc.	1.10 — 1.11
U.S.P., 1880	— .34
Anaesthesia	— .21
Eucalyptol, U.S.P., See Aromatic	— —
Formaldehyde	.23 — .25
Gelatin, silver	1.10 — 1.15
*Gold	— —
Glycerin, C. P.	— —
Drugs and bbls. added	.195 — .20
C. P. in cans	.22 — .23
Dynamite, drums included	— .20
Saponifications, loose	— .13
Soap Lye, loose	— 1.24
Guaiacol, liquid	— 10.00
Crystals	— 13.00
Carbonate	— 12.00
Guarana	— .85
Haarlem Oil, dom.	3.75 — 4.50
Imported	— 5.50
Hexamethylenetetramine	1.00 — 1.05
Hydrogen Peroxide, U.S.P., 10 gr. lots	— —
4-oz. bottles	— 7.25
12-oz. bottles	— 16.25
16-oz. bottles	— 19.25
Hydroquinone, bulk	1.80 — 1.85
Iodides, See Potass. Iodide, etc.	— —
Iodine, Resublimed	— 4.50
Iodoform, Powdered, bulk	— 5.25
Crystals	— 5.75

Iron Citrate, U.S.P., VIII.	— 1.20
and Ammon. Citrate, U.S.P.	— 1.15
Green scales, U.S.P.	— 1.41
Iodide	— 4.25
Phosphate, U.S.P.	— 1.08
Pyrophosphate, U.S.P.	— 1.15
*Kamala, U.S.P.	— 4.00
Lanolin, hydrous, cans U.S.P.	— .33
Anhydrous, cans	— .26
Lead Iodide, U.S.P. VIII.	— 3.40
Licorice, U.S.P., Mass.	.58 — .60
Powdered	.90 — 1.00
Lithium Carbonate	— 1.50
Citrate	— 2.50
Lupulin	2.25 — 2.50
Lycopodium, U.S.P.	1.85 — 1.95
Magnesium Carb. U.S.P. bbls.	.12 — .124
Glycophosphate	— 4.25
Hypophosphite	1.65 — 1.75
Oxide, tins light	— 2.15
Peroxide, cans	— 2.15
Salicylate	.60 — .65
Sulphate, Epsom Salt, tech.	— —
100-lbs.	2.20 — 2.30
U.S.P. 100-lbs.	2.50 — 2.75
Manganese Glycophosph.	3.25 — 3.35
Hypophosphite, U.S.P., VIII.	2.00 — 2.10
Iodide	— 5.00
Peroxide	.75 — .80
Sulphate, crystals	— .55
Menthol, Japanese	10.00 — 10.50
Mercury, flasks, 75 lb.	100.00 — 102.00
Bisulphate	— 1.17
Blue Mass	— .78
Powdered	— .80
Blue Ointment, 30 p.c.	.75 — .78
50 p.c.	— 1.06
Citroine Ointment	— .49
Calomel, Amer.	— 1.59
Corrosive Sublimated, cryst.	— 1.48
Powdered, Granular	— 1.43
Iodide, Green	— 4.11
Red	— 4.21
Yellow	— 4.11
Red Precipitate	— 1.75
Powdered	— 1.85
White Precipitate	— 1.88
Powdered	— 1.83
with chalk	— .78
Methyl salicylate, see Aromatic	— —
Methylene Blue, medicinal	— 12.00
Milk, powdered	— .23
Mineral Oil, white	1.00 — 2.00
Morphine, Acet., 25-oz.	— 8.80
Hydrochloride	— 8.80
Sulphate	— 8.80
Diacetyl. Alkaloid 10-oz.	— 11.00
Diacetyl. Hydcl.	— 11.00
Ethyl Hydcl.	— 13.45
Naphthalene, See Coal Tar Products	— —
Olive Oil, See Oils, Pg. 27	— —
Opium, cases, U.S.P.	7.50 — 8.00
Granular	— 9.00
Powdered, U.S.P.	— 9.00
Oxgall, pure U.S.P.	1.50 — 1.55
Papain	3.50 — 4.00
Paraffin White Oil, U.S.P.	3.10 — 3.60
Paris Green, kegs	.30 — .31
Pepsin, Powd., U.S.P.	3.00 — 3.60
Petrolatum, light amber bbls.	.054 — .06
Cream White	.07 — .08
Lily White	.094 — .19
Snow White	.13 — .194
Phenolphthalein	1.75 — 1.80
Phosphorus, yellow	— 68
Red	— 70
Pilocarpine	— 10.00
Podophyllin	7.50 — 8.00
Potassium acetate	— 1.00
Bicarbonate, U.S.P.	.22 — .23
Bisulphate	.45 — .60
C. P.	.75 — .85
Bromide Crystals, bulk	.75 — .80
Granulated	.75 — .78
Chlorate	.18 — .19
Chromate, crystals, yellow	— .75
tech. 1-lb. c. 10	— 1.84
Citrate, bulk, U.S.P.	1.75 — 1.80
Glycophosphate, 75%	1.95 — 2.00
Hypophosphite, bulk	3.50 — 3.55
Iodide, bulk	— 1.00
Lactophosphate	.55 — .58
Permanganate, U.S.P.	— .58

\*Nominal.



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ETHYL CHLORIDE  
NITRATE SILVER  
SOLUBLE COTTON AND ITS SOLVENTS  
SULPHITE SODA  
SULPHUR FLOUR



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Quinine and its Salts  
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Salts  
Thymol Iodide

## Fine Chemicals, Acids, and Crude Drugs

Potassium Salicylate.....lb.	1.55	— 1.60
Sulphate, C.P.....lb.	1.11	— 1.16
Tartrate, powdered.....lb.	—	— 1.25
Procaine, oz. bottles.....	7.00	— 7.50
5 gr. bottles.....	1.50	— 1.60
Quicksilver. See Mercury		
Quinine Sulph., 100-oz. tins. oz.	—	— .90
1-oz. tins.....oz.	—	— .98
Second Hards, Java.....oz.	—	— 1.30
Second Hands, American.....oz.	1.40	— 1.50
Bisulphate, 100-oz. tins.....oz.	—	— .80
Alkaloid.....lb.	1.29	— 1.29
Acetate.....oz.	1.29	— 1.29
Benzoate.....oz.	1.29	— 1.29
Citrate.....oz.	1.29	— 1.29
Dihyd/chloride.....oz.	1.29	— 1.29
Hydrochloride.....oz.	1.19	— 1.19
Hypophosphite.....oz.	1.29	— 1.29
Phosphate.....oz.	1.19	— 1.19
Salicylate.....oz.	1.19	— 1.19
Tannate.....oz.	—	— .90
Quinidine Alk. crystals, tins. oz.	—	— 1.26
Sulphate, tins.....oz.	—	— .85
Resorcin crystals, U. S. P. lb.	6.00	— 6.25
Rochelle Salt, crystals, bxs. lb.	—	— .43
Powdered, bbls.....lb.	—	— .43
Rosewater, triple.....lb.	11.50	— 12.00
Saccharin, U.S.P., soluble.....lb.	3.50	— 3.75
C.S.P., Insoluble.....lb.	3.50	— 3.75
Salicin, bulk.....lb.	—	— 30.00
Salol, U.S.P., bulk.....lb.	85	— 90
Santonin, cryst., U.S.P.....lb.	80.00	— 90.00
Powdered.....lb.	85.00	— 95.00
Seidlitz Mixture, bbls.....lb.	—	— 33 1/2
Silver nitrate, 500 oz. lots.....oz.	73	— 74
Soap, Castile, white pure.....lb.	26	— 30
Powd., U.S.P., bbls.....lb.	38	— 42
Marseilles, white.....lb.	19	— 20
Green, pure.....lb.	15	— 16
Ordinary.....lb.	15	— 16
Sodium Acetate, U.S.P., gran.....lb.	25	— 29
Benzoate, gran., U.S.P.....lb.	77	— 80
Bicarb., U.S.P., powd., bbls.....lb.	02 3/4	— 02 3/4
Bromide, U.S.P., bulk.....lb.	49	— 50
Cacodylate.....oz.	—	— 1.40
Chlorate, U.S.P. 8th Rev.		
crystals, c.b. 10.....lb.	15 1/2	— 16
Granular, c.b. 10.....lb.	—	— 20
Citrate, U.S.P., Cryst VIII.....lb.	—	— 1.15
Granular, U.S.P. IX.....lb.	—	— 1.30
Cyanide 96-98, see Heavy Chemicals		
Glycerophosphate, crystals lb.	2.15	— 2.20
Hypophosphite, U.S.P., lb.	1.00	— 1.05
Iodide, bulk.....lb.	—	— 4.05
Peroxide.....lb.	35	— 40
Phosphate, U.S.P., gran.....lb.	—	— 13
Recryst.....lb.	17	— 18
Dried.....lb.	40	— 45
Salicylate, U.S.P.....lb.	53	— 55
Sulph. (Glauber's Salt).....lb.	01 1/4	— 01 1/4
Strontium Brom. Cryst. blk. lb.	50	— 51
Carbonate, pure.....lb.	40	— 45
Iodide, bulk.....lb.	—	— 3.70
Salicylate, U.S.P.....lb.	—	— 60
Strychnine Alkd., cryst.....oz.	—	— 1.80
Acetate.....oz.	—	— 1.80
Nitrate.....oz.	—	— 1.80
Sulphate, crystals, bulk.....oz.	—	— 1.40
Sugar of Milk, Powder.....lb.	33	— 36
Cartons, 1 lb.....lb.	35	— 40
Sulphonol, 100-oz. lots.....	85	— 90
Sulphonethylmethane, U.S.P. lb.	16.00	— 16.75
Sulphonmethane, U.S.P.....lb.	13.00	— 14.00
Sulphur, roll, bbls.....100 lbs.	2.95	— 3.15
Flour, 100 p.c. pure.....100 lbs.	3.10	— 3.40
Flowers, 100 p.c. pure.....100 lbs.	3.30	— 3.60
Precip., U.S.P.....lb.	—	— 17
Lac Sulphur.....lb.	—	— 12
Tartar Emetic, tech.....lb.	67	— 67 1/2
U.S.P.....lb.	73	— 73 1/2
Terpin Hydrate.....lb.	84	— 85
Theobromine Alkaloid.....lb.	—	— 11.00
Thymol, crystals, U.S.P.....lb.	7.50	— 8.00
Iodide, U.S.P., bulk.....lb.	—	— 11.50
Tin, bichloride, see Heavy Chemicals		
Oxide, 500 lb. bbls.....lb.	—	— 60
Toluol. See Coal Tar Crudes		
Turpentine, Venice, True.....lb.	3.00	— 3.50
Artificial.....lb.	14	— 15
Spirits, see Naval Stores		
Vanillin, see Aromatic Chemicals		
Witch Hazel, Ext., dble dist., bbl.....gal.	—	— 1.15
Zinc Carbonate.....lb.	—	— 16
Chloride, U.S.P.....lb.	45	— 50
Iodide, bulk.....lb.	—	— 4.15
Metall. C. P.....lb.	45	— 75
Oxide, U.S.P., bbls.....lb.	22	— 23
Stearate.....lb.	38	— 42
*Nominal		

## Acids

Acetic, 28 p.c., See Heavy Chemicals

Glacial, See Heavy Chemicals

Acetyl-salicylic.....lb. .90 | — .95 |Benzoic, from gum.....lb. — | — .85 |U.S.P., ex toluol.....lb. .85 | — .90 |Boric, cryst., bbls.....lb. 13 1/4 | — 14 |Powdered, bbls.....lb. 13 1/4 | — 14 |Butyric, Tech., 60 p.c.....lb. 1.45 | — 1.55 |Camphoric.....lb. 6.00 | — 6.20 |Carbolic, cryst., U.S.P., drs. lb. .12 | — .13 || 1-lb. bottle.....lb. | — | — .26 |
5-lb. bottle.....lb.	—	— .23
.50 to 1-lb. tins.....lb.	.19 1/2	— .20
Liquid, U.S.P.....lb.	—	— .25
Crude, 25%.....gal.	.24	— .31
Chromic, U.S.P.....lb.	1.25	— 1.50
Chrysophanic.....lb.	—	— 5.00
Citric, crystals, bbls.....lb.	—	— .90
Powdered.....lb.	—	— .92
Second hands.....lb.	.85	— .90
Cresylic, 95-100 p.c.....gal.	.75	— .85
Formic, 75 p.c., tech.....lb.	.30	— .36
Gallic, U.S.P., bulk.....lb.	1.40	— 1.45
Glycerophosphoric, 25 p.c.....lb.	—	— 2.50
Hydriodic, sp. g. 1.150.....oz.	—	— .19
Hydrofluoric, see Heavy Chemicals		
Hydrosilicofluoric, 10 p.c. tech. lb.	.40	— .45
20 p.c. tech.....lb.	.50	— .60
Hypophosphorous, 50 p.c.....lb.	2.40	— 2.50
U.S.P., 10 p.c.....lb.	.60	— .65
Lactic, U.S.P., VIII.....lb.	—	— 2.20
U.S.P., IX.....lb.	—	— 2.40
Molybdic, C.P.....lb.	—	— 8.50
Muriatic, see Heavy Chemicals		
Nitric, see Heavy Chemicals		
Vitro Muriatic.....lb.	20	— 23
Vitro, purified.....lb.	23	— 28
Oxalic, cryst., bbls.....lb.	24	— 26
Picric, kegs, see Intermediates		
Phosphoric, 85-88 p.c. syr. U.S.P. lb.	.32	— .33
50 p.c. tech.....lb.	.21 1/4	— .23 1/4
Pyrogallic, resublimed.....lb.	2.30	— 2.35
Crystals, bottles.....lb.	2.00	— 2.10
Pyroligneous, purified.....lb.	.08	— .10
Technical.....gal.	.12	— .12 1/2
Salicylic, Bulk, U.S.P.....lb.	.45	— .48
Sulphuric, C.P.....lb.	.08	— .09
Sulphurous.....lb.	.06	— .06 1/2
Tannic, technical.....lb.	.50	— .60
U.S.P., bulk.....lb.	—	— 1.30
Tartaric Crystals, U.S.P.....lb.	.70	— .72
Powdered, U.S.P.....lb.	.72	— .73
Trichloroacetic, U.S.P.....lb.	4.40	— 4.50

## Crude Drugs

## MISCELLANEOUS

Agar, Agar, No. 1.....lb.	.83	— .84
No. 2.....lb.	—	— .80
No. 3.....lb.	—	— .75
Almonds, bitter.....lb.	.45	— .50
Sweet.....lb.	.45	— .50
Meal.....lb.	.47	— .52
Ambergris, black.....oz.	—	— 10.00
Grey.....lb.	—	— 23.00
Areca Nuts.....lb.	.30	— .32
Powdered.....lb.	.33	— .35
Balm of Gilead Buds.....lb.	—	— 4.00
Burgundy Pitch, Dom.....lb.	.09	— .09 1/2
Cantharides, Chinese.....lb.	1.15	— 1.20
Powdered.....lb.	1.25	— 1.30
Russian, whole.....lb.	—	— 3.75
Powdered.....lb.	—	— 4.00
Charcoal Willow, powdered.....lb.	.05 1/2	— .07
Wood, powdered.....lb.	.04	— .05
Civet.....oz.	2.50	— 2.75
Colocynth, Apples, Trieste.....lb.	.30	— .35
Pulp, U.S.P.....lb.	.35	— .36
Spanish Apples.....lb.	.45	— .55
*Nominal		

Cuttlefish Bones, Trieste.....lb.	.58	— .60
Jewelers, large.....lb.	1.70	— 1.75
Small.....lb.	1.55	— 1.60
French.....lb.	.55	— .60
Dragon's Blood, Mass.....lb.	.35	— .40
Reeds.....lb.	2.50	— 2.75
Ergot, Russian.....lb.	4.00	— 4.40
Spanish.....lb.	4.00	— 4.25
Grains of Paradise.....lb.	—	— .60
Hops, N. Y., prime.....lb.	.83	— .87
Pacific Coast, prime.....lb.	.85	— .89
Isinglass, American (see Agar Agar)		
Russian.....lb.	—	— 10.00
Kola Nuts, West Indies.....lb.	.19	— .21
Honey, Calif.....lb.	.20	— .22
Manna, large flake.....lb.	.75	— .80
Small flake.....lb.	.60	— .64
Moss, Iceland.....lb.	.21	— .21
Irish.....lb.	.11	— .15
Musk, pods, Cab.....oz.	—	—
Tonquin.....oz.	25.00	— 26.00
Grain, Cab.....lb.	23.00	— 25.00
Tonquin.....lb.	41.00	— 43.00
*Synthetic.....lb.	—	— 30.00
Nux Vomica, whole.....lb.	.07 1/2	— .08 1/2
Powdered.....lb.	.12	— .13
Poppy Heads.....lb.	—	— 1.5
Sandalwood.....lb.	.48	— .50
Ground.....lb.	.55	— .60
Scammony, resin.....lb.	2.95	— 3.20
Powdered.....lb.	3.05	— 3.30
Spermaceti, blocks.....lb.	.30	— .31
Storax, liquid cases.....lb.	1.50	— 1.60
Tamarinds, bbls.....lb.	.11 1/2	— .12 1/2
Kegs.....per keg	—	— 6.25

## BALSAMS

Copaiba, Para.....lb.	.45	— .50
South American.....lb.	.55	— .60
Fir, Canada.....lb.	10.00	— 10.50
Oregon.....gal.	1.60	— 1.75
Pegu.....lb.	3.50	— 3.55
Tolu.....lb.	1.55	— 1.60

## BARKS

Angostura.....lb.	.28	— .30
Rasswood Bark, pressed.....lb.	.17	— .21
Bayberry.....lb.	.35	— .38
Blackhaw, of root.....lb.	.60	— .65
of Tree.....lb.	.35	— .40
*Buckthorn.....lb.	.60	— .65
Calaya.....lb.	.95	— 1.00
Cascara Sagrada.....lb.	.16	— .18
Cascarilla, quills.....lb.	.24	— .25
Siftings.....lb.	.12	— .13
Chestnut.....lb.	.10	— .10 1/2
Cinchona, red quills.....lb.	.80	— .90
Broken.....lb.	.60	— .70
*Yellow "quills".....lb.	—	—
*Broken.....lb.	—	—
*Loxa, pale, bs.....lb.	—	—
*Powdered, boxes.....lb.	—	—
*Maracaibo, yellow, powd. lb.	—	—
Condurango.....lb.	.10	— .10 1/2
Cotton Root.....lb.	.22	— .24
Cramp (true).....lb.	.42	— .45
Cramp (so-called).....lb.	.11	— .12
Dogwood, Jamaica.....lb.	.28	— .32
Elm, grinding.....lb.	.60	— .65
Select bbls.....lb.	—	— .08
Hemlock.....lb.	.07	— .08
Lemon Peel.....lb.	.10	— .10 1/2
Mezerion.....lb.	.22	— .23
Oak, red.....lb.	.08	— .09
White.....lb.	.08	— .09
Orange Peel, bitter.....lb.	—	— .12
Malaga, Sweet.....lb.	.12	— .13
Trieste, sweet.....lb.	.10	— .12
Prickly Ash, Southern.....lb.	.20	— .22
Northern.....lb.	.18	— .20
Pomegranate of Root.....lb.	.26	— .28
of Fruit.....lb.	.25	— .28
Sassafras, ordinary.....lb.	.35	— .45
Select.....lb.	.45	— .55
Simaruba.....lb.	.60	— .65
Soap, whole.....lb.	.23	— .24
Cut.....lb.	.21	— .22
Crushed.....lb.	.20	— .21
Walnut, of Root.....lb.	.70	— .80
of Tree.....lb.	.30	— .35
Willow, Black.....lb.	.06	— .07
White.....lb.	.16	— .17
White Pine Rosed.....lb.	.07	— .08
White Poplar.....lb.	.07	— .08
Wild Cherry.....lb.	.15	— .21
Witch Hazel.....lb.	.08	— .09
*Nominal		

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## BEANS

Calabar .....	lb.	.85	—	.36
St. Ignatius .....	lb.	—	—	1.00
St. John's Bread .....	lb.	.09	—	.12
Tonka, Angostura .....	lb.	—	—	1.25
Para .....	lb.	1.15	—	1.25
Surinam .....	lb.	1.00	—	1.10
Vanilla, Mexican, whole .....	lb.	4.50	—	5.50
Cuts .....	lb.	3.25	—	3.50
Bourbon .....	lb.	3.00	—	3.25
South American .....	lb.	3.25	—	3.75
Tahiti, Yellow Label .....	lb.	2.75	—	3.00
Green Label .....	lb.	—	—	2.75

## BERRIES

Cubeb, ordinary .....	lb.	1.35	—	1.40
XX .....	lb.	1.40	—	1.45
Powdered .....	lb.	1.35	—	1.40
Fish .....	lb.	.60	—	.65
Horse, Nettle, dry .....	lb.	.40	—	.45
Juniper .....	lb.	.08	—	.08½
Laurel .....	lb.	.08	—	.10
*Poke .....	lb.	.14	—	.15
Prickly Ash .....	lb.	.15	—	.16
Saw Palmetto .....	lb.	.15	—	.16
Sloe .....	lb.	.25	—	.30

## FLOWERS

Arnica .....	lb.	.37	—	.42
Powdered .....	lb.	.60	—	.70
Borage .....	lb.	.60	—	.70
Calendula Petals .....	lb.	—	—	2.75
Chamomile, German .....	lb.	—	—	—
Hungarian type .....	lb.	.50	—	.55
Roman .....	lb.	.35	—	.40
Spanish .....	lb.	—	—	.45
Clover Tops .....	lb.	.11	—	.12
Dogwood .....	lb.	.17	—	.18
Elder .....	lb.	.50	—	.55
Insect, open .....	lb.	.55	—	.60
Closed .....	lb.	.44	—	.46
Powd. Flowers and stems .....	lb.	.65	—	.70
*Kousso .....	lb.	—	—	.60
Lavender, ordinary .....	lb.	.18	—	.20
Select .....	lb.	.26	—	.28
Linden, with leaves .....	lb.	.37	—	.40
Without Leaves .....	lb.	.65	—	.70
Malva, blue .....	lb.	1.00	—	1.10
Black .....	lb.	.55	—	.60
Mullein .....	lb.	1.68	—	1.70
Orange .....	lb.	1.95	—	2.00
Poppy, red .....	lb.	.95	—	1.10
Rosemary .....	lb.	.69	—	.70
Saffron, American .....	lb.	.34	—	.35
Valencia .....	lb.	14.50	—	15.00
Tilia (see Linden) .....	lb.	—	—	—

## GUMS

Aloes, Barbados .....	lb.	.98	—	1.05
Cape .....	lb.	.13	—	.15
Curacao, cases .....	lb.	.09	—	.09½
Socotrine, whole .....	lb.	.85	—	.90
Powdered .....	lb.	—	—	1.00
Ammoniac, tears .....	lb.	—	—	—
Powdered .....	lb.	.35	—	.40
Arabic, firsts .....	lb.	—	—	.40
Seconds .....	lb.	.15½	—	.16
Sorts Amber .....	lb.	.27	—	.30
Powdered .....	lb.	3.70	—	3.90
*Asafoetida, whole, U.S.P. .....	lb.	5.25	—	5.50
Powdered .....	lb.	.80	—	1.00
Benzoin, Siam .....	lb.	.36	—	.38
Sumatra .....	lb.	—	—	.11
Camphor, ref. See Pg. 32 Col. 2 .....	lb.	1.40	—	1.50
Catechu .....	lb.	.28	—	.30
Chicle, Mexican .....	lb.	—	—	.30
Euphorbium .....	lb.	1.38	—	1.45
Powdered .....	lb.	.11	—	.12
Galbanum .....	lb.	1.95	—	2.05
Gambier .....	lb.	.70	—	1.00
Gamboge .....	lb.	.83	—	.90
Guaiac .....	lb.	.49	—	.50
Hemlock .....	lb.	1.10	—	1.15
Kino .....	lb.	.70	—	.78
Mastic .....	lb.	—	—	.15
Myrrh, Select .....	lb.	—	—	.18
Sorts .....	lb.	—	—	.30
Siftings .....	lb.	—	—	.30
Olibanum, siftings .....	lb.	—	—	.30
Tears .....	lb.	—	—	.30
Opium, See Pg. 33, Col. 3 .....	lb.	—	—	.30
Sandarac .....	lb.	—	—	.30
*Senegal .....	lb.	—	—	.30
Sorts .....	lb.	—	—	.30
Spruce .....	lb.	1.00	—	1.30
Storax, Art. cases .....	lb.	1.25	—	1.60
Thus, per bbl. .....	lb.	—	—	25.00
Tragacanth, Al eppo first .....	lb.	4.50	—	4.75
Seconds .....	lb.	1.50	—	3.75
Thirds .....	lb.	—	—	2.50
*Nominal .....	lb.	—	—	—

## LEAVES AND HERBS

*Aconite .....	lb.	.60	—	.70
Balmory .....	lb.	.15	—	.17
Bay, true .....	lb.	—	—	.28
Belladonna .....	lb.	.28	—	.30
Boneset, leaves and tops .....	lb.	.16	—	.18
Buchu, short .....	lb.	2.25	—	2.35
*Long .....	lb.	2.25	—	2.50
Cannabis, true, imported .....	lb.	—	—	.29
American .....	lb.	.15	—	.16
Catnip .....	lb.	.06	—	.07
Chestnut .....	lb.	.25	—	.26
Chiretta .....	lb.	.60	—	.70
*Coca, Huanuco .....	lb.	.18	—	.19
Truxillo .....	lb.	.29	—	.30
Coltsfoot .....	lb.	.12	—	.14
Coriun .....	lb.	.12	—	.14
Corn Silk .....	lb.	.23	—	.24
Damiana .....	lb.	.10	—	.11
Deer Tongue .....	lb.	.15	—	.16
Digitalis, Domestic .....	lb.	.14	—	.15
Imported .....	lb.	.15	—	.16
Eucalyptus .....	lb.	.14	—	.15
Euphorbia Pilulifera .....	lb.	—	—	.12
Grindelia Robusta .....	lb.	1.20	—	1.25
Henbane, German .....	lb.	.40	—	.45
*Russian .....	lb.	.62	—	.65
Domestic .....	lb.	.45	—	.50
Henna .....	lb.	.08½	—	.09
Horehound .....	lb.	.10	—	.11
*Jaborandi .....	lb.	.23	—	.25
Life Everlasting .....	lb.	.20	—	.22
Liverwort .....	lb.	.45	—	.46
Lobelia .....	lb.	.16	—	.17
Matico .....	lb.	.26	—	.30
*Marjoram, African .....	lb.	.11	—	.12
French .....	lb.	.21	—	.22
Motherwort herb .....	lb.	.12	—	.14
Patchouli .....	lb.	2.50	—	3.00
Pennyroyal, American .....	lb.	.10	—	.11
Peppermint .....	lb.	1.10	—	1.15
Prince's Pine .....	lb.	.12	—	.14
Plantain .....	lb.	.65	—	.70
Pulsatilla .....	lb.	.11	—	.12
Queen of the Meadow .....	lb.	.09	—	.10
Rose, red .....	lb.	.75	—	.80
Rosemary .....	lb.	.50	—	.55
Rue .....	lb.	.24	—	.25
Sage, Austrian, stemless .....	lb.	.30	—	.35
*Grinding .....	lb.	.16	—	.24
Greek, stemless .....	lb.	.10	—	.12
Spanish .....	lb.	.40	—	.45
Savory .....	lb.	.20	—	.22
Senna, Alexandria, whole .....	lb.	.31	—	.33
Half Leaf .....	lb.	.11	—	.12
Siftings .....	lb.	.10	—	.11
Powdered .....	lb.	.10	—	.11
Tinelly .....	lb.	.10	—	.11
Pod .....	lb.	.10	—	.11
Skullcap, Western .....	lb.	.10	—	.11
Spear-mint American .....	lb.	.10	—	.11
Squaw Vine .....	lb.	.10	—	.11
Stramonium .....	lb.	.10	—	.11
Tansy .....	lb.	.10	—	.11
Thyme, Spanish .....	lb.	.10	—	.11
French .....	lb.	.10	—	.11
Uva Ursi .....	lb.	.10	—	.11
Witch Hazel .....	lb.	.10	—	.11
Wormwood imported .....	lb.	.10	—	.11
Yerba Santa .....	lb.	.10	—	.11

## ROOTS

Aconite, U.S.P. .....	lb.	.70	—	.75
German .....	lb.	2.25	—	2.50
Alkanet .....	lb.	.70	—	.72
Althea, cut .....	lb.	.35	—	.40
Whole .....	lb.	.35	—	.37
Angelica American .....	lb.	.59	—	.69
Imported .....	lb.	.85	—	1.00
Arnica .....	lb.	—	—	.10
Arrowroot, American .....	lb.	—	—	.20
Bermuda .....	lb.	.06	—	.09
St. Vincent .....	lb.	.14	—	.17
Bamboo Brier .....	lb.	.18	—	.20
Bearsfoot .....	lb.	.33	—	.35
Belladonna .....	lb.	.32	—	.34
Berberis, Aquifolium .....	lb.	.24	—	.26
Beth .....	lb.	.18	—	.19
Blood .....	lb.	.16	—	.17
Blueflag .....	lb.	.60	—	.65
Bryonia .....	lb.	.20	—	.25
Burdock, imported .....	lb.	.09	—	.10
American .....	lb.	.13	—	.14
Calamus, bleached .....	lb.	—	—	.06
Unbleached, natural .....	lb.	—	—	.06
Cohosh, black .....	lb.	—	—	.06
Blue .....	lb.	—	—	.06
*Nominal .....	lb.	—	—	.06

Colchicum .....	lb.	1.50	—	1.60
Colombo, whole .....	lb.	.24	—	.29
Comfrey .....	lb.	.25	—	.26
Culver's .....	lb.	.23	—	.24
Cranesbill, see Geranium .....	lb.	.24	—	.26
Dandelion, English .....	lb.	.21	—	.22
American .....	lb.	.25	—	.28
Doggrass Dom. .....	lb.	.29	—	.30
Cut Bermuda .....	lb.	.38	—	.42
Echinacea .....	lb.	.13	—	.14
Elecampane .....	lb.	.28	—	.30
Galangal .....	lb.	.13	—	.14
Gelsemium .....	lb.	.14	—	.15
Gentian .....	lb.	.25	—	.27
Geranium .....	lb.	.60	—	.625
Ginger, Jamaica, unbleached .....	lb.	5.00	—	5.00
Bleached .....	lb.	3.00	—	3.00
*Ginseng, Cultivated .....	lb.	5.00	—	5.00
Wild, Eastern .....	lb.	5.00	—	5.00
Northwestern .....	lb.	5.00	—	5.00
Southern .....	lb.	6.50	—	6.75
Golden Seal .....	lb.	1.40	—	1.50
Powdered .....	lb.	.20	—	.21
*Hellebore, Black, Imported .....	lb.	.25	—	.26
White, Domestic .....	lb.	—	—	.30
Powdered .....	lb.	—	—	.30
Imported .....	lb.	—	—	.30
Ipecac, Cartagena .....	lb.	3.10	—	3.20
Powdered .....	lb.	3.30	—	3.50
Rio, whole .....	lb.	3.10	—	3.30
Powdered .....	lb.	3.35	—	3.60
Jalap, whole .....	lb.	.70	—	.80
Kava Kava .....	lb.	.22	—	.25
Lady Slipper .....	lb.	1.00	—	1.15
Licorice, *Russian, cut .....	lb.	.19	—	.20
Spanish natural bales .....	lb.	.27	—	.28
Selected .....	lb.	.24	—	.25
Powdered .....	lb.	.73	—	.75
*Lovage, American .....	lb.	.27	—	.29
Manaca .....	lb.	.29	—	.31
Mandrake .....	lb.	—	—	2.00
Musk, Russian .....	lb.	.22	—	.23
Oriss, Florentine bold .....	lb.	.20	—	.21
Verona .....	lb.	.30	—	.32
Pareira Brava .....	lb.	.29	—	.31
Pellitory .....	lb.	1.25	—	1.50
Pink, true .....	lb.	.16	—	.20
Pleurisy .....	lb.	.15	—	.17
Poke .....	lb.	.12	—	.14
Rhatany .....	lb.	—	—	.15
*Rhubarb Shensai .....	lb.	—	—	.15
Chips .....	lb.	—	—	.15
Cuts .....	lb.	1.75	—	1.90
High Dried .....	lb.	.66	—	.70
Sarsaparilla, Honduras .....	lb.	.43	—	.45
American .....	lb.	1.65	—	1.75
Mexican .....	lb.	1.65	—	1.75
Senega, Northern .....	lb.	.75	—	.80
Southern .....	lb.	.20	—	.22
Serpentaria .....	lb.	.38	—	.40
Skunk Cabbage .....	lb.	.50	—	.55
Snake, Canada natural .....	lb.	.30	—	.32
Stripped .....	lb.	.12	—	.14
Spikenard .....	lb.	.12	—	.12½
Squill, white .....	lb.	.08½	—	.09
Stillingia .....	lb.	.55	—	.60
Stone .....	lb.	.65	—	.70
Turmeric Madras .....	lb.	.07	—	.08
Aleppy .....	lb.	.55	—	.60
China .....	lb.	.65	—	.70
Unicorn false (Helonias) .....	lb.	.60	—	.65
True (Alettris) .....	lb.	.38	—	.40
Valerian, Belgian .....	lb.	.50	—	.55
*English .....	lb.	—	—	.15
*German .....	lb.	.13	—	.15
*Japanese .....	lb.	1.50	—	2.00
Yellow Dock .....	lb.	.37	—	.38
Yellow Parilla .....	lb.	2.00	—	2.10

## SEEDS

Anise, Levant .....	lb.	.20	—	.20½
Star .....	lb.	.18½	—	.19½
Spanish .....	lb.	.19	—	.20
Canary, *Spanish .....	lb.	.08½	—	.10
Morocco .....	lb.	.08½	—	.10½
South American .....	lb.	.13½	—	.14
Caraway, African .....	lb.	.12½	—	.13
Dutch .....	lb.	.63	—	.65
Domestic .....	lb.	1.50	—	2.00
Cardamom, bleached .....	lb.	.37	—	.38
Celery .....	lb.	.200	—	.210
Colchicum .....	lb.	.39	—	.40
Coriander, Bombay .....	lb.	.054	—	.054
Morocco, Unbleached .....	lb.	.06	—	.064
Bleached .....	lb.	.094	—	.10
*Nominal .....	lb.	—	—	—



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## Essential Oils, Oleoresins, Aromatic and Heavy Chemicals

*Cumin, Levant .....	lb.	—	—
*Malta .....	lb.	—	—
Morocco .....	lb.	.11½	.12
Dill .....	lb.	.13	.14
Fennel, French .....	lb.	.14	.14½
German .....	lb.	.14	.16
*Roumanian, small .....	lb.	—	—
Flax, whole .....	per bbl.	20.00	22.00
Ground .....	lb.	.11	.12
Foenugreek .....	lb.	.04½	.05
Hemp, Manchurian .....	lb.	.09	.09½
Chilian .....	lb.	.09	.09½
Job's Tears, white .....	lb.	.05¼	.06
Larkspur .....	lb.	.29	.30
Lobelia .....	lb.	.60	.65
Mustard, Bari, Brown .....	lb.	—	—
Dutch .....	lb.	.25	.26
Bombay, Brown .....	lb.	.15	.15½
California brown .....	lb.	.18	.20
Chinese, Yellow .....	lb.	.09	.10
English, yellow .....	lb.	.25	.26
Parsley .....	lb.	.28	.29
Poppy, Dutch .....	lb.	.45	.47
Russian blue .....	lb.	—	—
Indian .....	lb.	.24½	.25
Quince .....	lb.	.90	.95
Rape, English .....	lb.	—	—
Japanese small .....	lb.	.12½	.12¾
Domestic .....	lb.	.08½	.09
Sabadilla .....	lb.	.16	.17
Stramonium .....	lb.	.25	.26
Strophanthus, Hispidus .....	lb.	1.55	1.60
Kombe .....	lb.	1.75	2.00
Sunflower, Domestic .....	lb.	.22	.22½
South American .....	lb.	.10	.10½
Worm, American .....	lb.	—	.35
Levant .....	lb.	1.20	1.25

## SPICES

Capsicum, African pods .....	lb.	.15	.16
Bombay .....	lb.	.15	.16
Japan Caps .....	lb.	—	.16
Cassia Buds .....	lb.	.22	.24
China, Selected, mats. ....	lb.	.19	.20
Saigon, assortment .....	lb.	.46	.47
Chillies, Japan .....	lb.	.25	.26
Mombasa .....	lb.	.14	.14½
Cinnamon, Ceylon .....	lb.	.42	.52
Cloves, Zanzibar .....	lb.	.51	.54
Amboyans .....	lb.	.50	.52
Penang .....	lb.	.70	.80
Ginger, African .....	lb.	.14	.14½
Jamaica, white good .....	lb.	.27	.30
Japan .....	lb.	.14	.14½
Mace, Banda, No. 1 .....	lb.	.44	.45
Banda, No. 2 .....	lb.	.43	.45
Batavia, No. 2 .....	lb.	.42½	.43
Nutmegs, 110s .....	lb.	.26½	.27
Pepper, Black, Sing. ....	lb.	.19½	.20
White .....	lb.	.32	.34
Pimento, Select .....	lb.	.09½	.10

## WAXES

Bayberry .....	lb.	.54	.55
Bees, light, crude .....	lb.	.43	.44
Light, refined .....	lb.	.48	.49
Dark .....	lb.	.47	.48
Candelilla .....	lb.	.31	.32
Carnauba, Flor. ....	lb.	—	—
No. 1, North Country .....	lb.	.90	.91
No. 2, North Country .....	lb.	.70	.75
No. 3, Fatty Gray .....	lb.	.56	.58
Chalky .....	lb.	.45	.48
Ceresin, Yellow .....	lb.	.16	.18
White .....	lb.	.18	.23
Japan .....	lb.	—	.30
Montan, crude .....	lb.	.35	.36
*Bleached .....	lb.	—	—
Ozokerite, crude, brown .....	lb.	.35	.36
*Green .....	lb.	—	—
*Refined, white .....	lb.	—	—
*Domestic .....	lb.	—	—
Refined, yellow .....	lb.	—	—
Paraffin, ref'd 123-139 deg. m.p. ....	lb.	.09	.09½
*Foreign, 130-132 deg. m.p. ....	lb.	.10	.10½
Stearic Acid, see Vegetable Oils, pg. 31			
*Nominal .....			

## Essential Oils

Almond, bitter .....	lb.	9.25	9.50
Bitter, U.S.P. ....	lb.	9.50	9.75
Artificial, U.S.P. ....	lb.	1.00	1.25
Sweet .....	lb.	1.00	1.10
Peach Kernel .....	lb.	.40	.45
Amber, crude .....	lb.	1.75	2.00
Rectified .....	lb.	2.00	2.25
Anise, U.S.P. ....	lb.	1.55	1.65
Bay .....	lb.	4.50	5.00
Bergamot .....	lb.	4.50	4.70
Synthetic .....	lb.	2.50	3.00
*Bois de Rose .....	lb.	—	9.00
Cade .....	lb.	1.00	1.10
Cajuput, U.S.P. ....	lb.	.90	1.00
Camphor, Sassafras .....	lb.	.12	.14
Japanese, white .....	lb.	.23	.25
Caraway, Rectified .....	lb.	5.75	6.00
Cassia, Technical .....	lb.	2.40	2.45
Lead, Free .....	lb.	2.50	2.55
Redistilled, U.S.P. ....	lb.	2.35	2.50
Cedar, Leaf .....	lb.	2.25	2.35
Cedar, Wood, light .....	lb.	.25	.27
Cinnamon, Ceylon, heavy .....	lb.	—	26.00
Citronella, Ceylon .....	lb.	.50	.50
Java .....	lb.	—	.90
Cloves, can .....	lb.	3.50	3.65
Bottles .....	lb.	3.60	3.90
Copaiba, U.S.P. ....	lb.	.85	.90
*Coriander, U.S.P. ....	lb.	—	65.00
Cubeb, U.S.P. ....	lb.	8.50	9.00
Cumin .....	lb.	8.50	9.00
Erigeron .....	lb.	6.75	7.00
Eucalyptus, Australian, U.S.P. ....	lb.	.80	.85
Fennel, sweet, U.S.P. ....	lb.	2.75	3.00
Geranium, Rose Algerian .....	lb.	9.50	10.00
Bourbon (Reunion) .....	lb.	8.25	8.75
Turkish .....	lb.	4.50	4.75
Ginger .....	lb.	7.25	7.50
Gingergrass .....	lb.	—	3.50
Hemlock .....	lb.	—	.90
Juniper Berries, rect. ....	lb.	8.00	8.25
Twice rect. ....	lb.	9.00	9.50
Wood .....	lb.	1.50	2.00
Lavender Flowers, U.S.P. ....	lb.	9.75	10.00
Garden .....	lb.	.75	1.00
Spike .....	lb.	1.40	1.50
Lemon, U.S.P. ....	lb.	1.30	1.50
Lemongrass, Native .....	lb.	2.25	2.50
Limes, Expressed .....	lb.	3.75	4.00
Distilled .....	lb.	1.10	1.25
Linaloe .....	lb.	7.00	7.25
Mace, distilled .....	lb.	1.50	1.60
Mirbane, ref. see Aromatic Chemicals			
Mustard, natural .....	lb.	25.00	30.00
Artificial .....	lb.	8.50	9.00
Neroli, bigarade .....	lb.	95.00	105.00
Petal .....	lb.	140.00	150.00
Artificial .....	lb.	15.00	30.00
Nutmeg, U.S.P. ....	lb.	1.60	1.75
Orange, bitter .....	lb.	2.20	2.30
Sweet, West Indian .....	lb.	2.40	2.50
Italian .....	lb.	3.75	4.00
Origanum, Imitation .....	lb.	.30	.45
*Orris Concrete .....	oz.	5.00	5.25
Patchouli .....	lb.	17.50	20.00
Pennyroyal, domestic .....	lb.	—	—
Imported .....	lb.	1.50	1.60
Peppermint, tins .....	lb.	7.50	8.00
Redistilled, U.S.P. ....	lb.	8.25	8.50
Petit Grain, So. America .....	lb.	—	4.00
French .....	lb.	9.00	9.50
Pinus Sylvestris .....	lb.	2.25	2.50
Punilio .....	lb.	3.75	4.00
Rose, French .....	oz.	15.00	17.00
Bulgarian .....	oz.	17.50	20.00
Artificial .....	oz.	2.30	3.50
Rosemary .....	lb.	1.10	1.30
Sandalwood, East India .....	lb.	10.50	10.75
West Indies .....	lb.	6.00	6.50
Sassafras, natural .....	lb.	1.80	2.00
Artificial .....	lb.	.75	.78
Savin .....	lb.	6.00	6.25
Spearmint .....	lb.	10.50	10.75
Spruce .....	lb.	.80	.85
Tansy, Amer. ....	lb.	4.25	4.50
Thyme, red, French, U.S.P. ....	lb.	1.85	2.00
White, French .....	lb.	2.00	2.25
Wintergreen, sweet, birch .....	lb.	6.00	6.25
Genuine Gaultheria .....	lb.	10.50	11.00
Synthetic, U.S.P., bulk .....	lb.	—	.60
Wormseed, Baltimore .....	lb.	4.50	4.75
Wormwood, Dom. ....	lb.	8.00	8.50
Ylang Ylang, Bourbon .....	lb.	10.00	15.00
Manila .....	lb.	25.00	45.00
Artificial .....	lb.	—	10.00

## OLEORESINS

Aspidium (Maletern) .....	lb.	10.00	11.00
Capsicum, 1-lb. bottles .....	lb.	—	4.00
Cubeb .....	lb.	7.75	8.00
Ginger .....	lb.	3.25	3.50
Malefern .....	lb.	—	10.00
Mullein (so-called) .....	lb.	5.00	5.25
*Orris, domestic .....	lb.	—	20.00
Imported .....	lb.	20.00	21.00
*Parsley Fruit (Petroselinum) .....	lb.	7.50	8.00
Pepper, black .....	lb.	—	7.00

## Aromatic Chemicals

Acetophenone .....	lb.	8.00	10.00
Amyl Salicylate .....	lb.	2.00	2.25
Anethol .....	lb.	2.75	3.00
Anisic Aldehyde, C.P. ....	lb.	—	7.50
Cinnamic Aldehyde .....	lb.	40.00	45.00
Benzyl Acetate .....	lb.	2.25	2.50
Imported .....	lb.	—	—
Benzyl Alcohol .....	lb.	2.50	2.75
Benzyl Benzoate .....	lb.	4.50	5.00
Imported .....	lb.	—	—
Borneol .....	lb.	4.00	4.25
Bromostyrol .....	lb.	11.00	11.50
Cinnamic Acid .....	lb.	6.00	6.50
Cinnamic Alcohol .....	lb.	40.00	45.00
Cinnamic Aldehyde .....	lb.	—	5.50
Citral .....	lb.	4.00	4.25
Citronellol .....	lb.	16.00	18.00
Imported .....	lb.	—	30.00
Coumarin .....	lb.	7.00	7.50
Ethyl Cinnamate .....	lb.	8.00	10.00
Eucalyptol .....	lb.	1.40	1.50
Eugenol .....	lb.	5.75	6.50
Geraniol, from citronella .....	lb.	3.50	4.00
Geranyl Acetate .....	lb.	—	6.50
Geranyl .....	lb.	—	—
Heliotropin .....	lb.	4.00	4.25
Indol, C. P. ....	oz.	—	20.00
Imported .....	oz.	—	—
Iso-Eugenol .....	lb.	9.00	9.25
Linalol .....	lb.	8.00	8.50
Linalol Acetate .....	lb.	12.00	14.00
Linalol Benzoate .....	lb.	—	—
Menthol .....	lb.	9.75	10.00
Methyl Anthranilate .....	lb.	15.00	17.00
Methyl Cinnamate .....	lb.	—	7.25
Methyl Paracresol .....	lb.	—	16.00
Methyl Salicylate .....	lb.	—	.70
Mirbane, rect. drums .....	lb.	14½	15
Musk Ambrette .....	lb.	92.00	100.00
Musk Ketone .....	lb.	13.00	15.00
Musk Xylene .....	lb.	35.00	40.00
Phenylacetaldehyde .....	lb.	35.00	42.00
Phenylethyl Alcohol .....	lb.	14.00	16.00
Phenylacetic Acid .....	lb.	20.00	22.00
Rhodinol .....	lb.	—	30.00
Imported .....	lb.	—	—
*Safrol .....	lb.	.85	.90
Terpineol, C. P. ....	lb.	—	1.25
Imported .....	lb.	—	1.70
Thymol .....	lb.	7.25	7.50
Vanillin .....	oz.	.85	1.00
Violet, artificial .....	lb.	12.00	13.00

## Heavy Chemicals

Acetic acid, 28 p.c., bbls., Incl.			
56 p.c., bbls. ....	100 lbs.	—	3.75
70 p.c., bbls. ....	100 lbs.	—	6.50
30 p.c., bbls. ....	100 lbs.	—	7.50
Redistilled .....	100 lbs.	—	8.50
Pure .....	100 lbs.	9.25	9.50
Glacial, bbls. ....	12.75	13.00	
Alum, ammonia, lump .....	lb.	—	.04
Ground .....	lb.	.04½	.04½
Powdered .....	lb.	.04½	.04½
Chrome .....	lb.	.15	.16
Potash lump .....	lb.	.07½	.08
Chrome .....	lb.	.17	.18
Ground .....	lb.	.09	.09½
Alum, Potash, Powdered .....	lb.	.07½	.08
Soda, Ground .....	lb.	—	.05
Aluminum chloride, carboys .....	lb.	—	.15
Anhydrous .....	lb.	2.75	3.00
Sulph. ....	lb.	1.70	1.85
Low grade .....	lb.	.14	.16
Aluminum hydrate light .....	lb.	—	.08½
Heavy .....	lb.	.08	.08½
Arsenic, white .....	lb.	.09½	.10½
Red .....	lb.	.20	.21
Arsenious Acid .....	lb.	.11	.11½
Ammonia, Anhydrous .....	lb.	.30	.35
Ammonia Carbonate .....	lb.	.12½	.13½
Ammonia Water, 26 deg. car. ....	lb.	—	.09
20 deg., carboys .....	lb.	—	.08
18 deg., carboys .....	lb.	—	.06½
16 deg., carboys .....	lb.	—	.06
*Nominal .....			

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AND

## Aromatic Chemicals

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*Correspondence Solicited*

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NEW YORK

# ROCKHILL & VIETOR

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NEW YORK

## Heavy Chemicals, Coal-tar Crudes, Intermediates, and Colors

Ammonium chloride, U.S.P. ....lb.	—	28 1/2	Saltpetre, Granulated .....lb.	—	13 1/4
Sal Ammoniac, gray.....lb.	—	13	Soda Ash, 58 p.c. light.....100 lbs.	1.90	2.15
Granulated, white.....lb.	—	12	In bbls.....100 lbs.	2.00	2.25
Lump.....lb.	24 1/2	23	Dense 58 p.c. bags.....100 lbs.	2.40	2.65
Sulphate, foreign.....100 lbs.	—	—	Caustic, 76 p.c.....100 lbs.	—	—
*Dom., double bags.....100 lbs.	5.05	5.25	F. o. b. Wks.....100 lbs.	—	3.50
Antimony, Sulphuret.....lb.	—	—	F. A. S.....100 lbs.	—	3.32 1/2
Crimson No. 1.....lb.	—	40	Ground, 76 p.c.....100 lbs.	4.00	4.25
Golden No. 1.....lb.	—	35	Sodium Acetate.....100 lbs.	.06 1/2	.07
No. 2.....lb.	—	30	Bichromate.....lb.	.13	13 1/2
Vermilion.....lb.	—	35	Bisulphate.....ton	3.00	4.00
Blanc Fixe, dry.....lb.	.03 1/2	.04 1/2	Bisulphite.....100 lbs.	5.00	6.00
Barium, chloride.....ton	80.00	82.50	Carbonate, Sal. Soda in bbls.	—	1.35
Imported.....ton	—	75.00	Bicarbonate.....lb.	—	2.45
Binoxide.....lb.	.23	.25	Chlorate.....lb.	—	.15
Nitrate.....lb.	.11	.13	Cyanide 98-98.....lb.	.30	.32
Barytes, floated, white.....ton	25.00	35.00	Hyposulph. bbls. gran.....100 lbs.	—	3.60
Off color.....ton	14.00	18.00	Kegs.....100 lbs.	—	3.55
Bleaching Pd., f.o.b.wks.....100 lbs.	—	2.50	Nitrate, tech.....100 lbs.	2.95	3.15
Calcium.....100 lbs.	2.00	2.10	Phosphate.....100 lbs.	3.25	3.40
Carbide.....lb.	.05	.07	Refined.....lb.	.07	.07 1/2
Carbonate.....lb.	.01 1/4	.02 1/4	Nitrite.....lb.	.14	.18
Extra Light.....lb.	.04	.05	Prussiate, Yellow.....lb.	.24 1/2	.25
Light.....lb.	.03 1/2	.04 1/2	Silicate, 60 deg.....lb.	2.85	3.25
Heavy.....lb.	.03	.04	40 deg.....lb.	.02	.02 1/2
Chloride, solid, f.o.b.N.Y.....ton	20.00	25.00	Sulphide, 60 p.c.....lb.	.04 1/2	.05 1/4
Granulated, f.o.b. N.Y.....ton	—	—	30 p.c. crystals.....lb.	.02	.02 1/2
Chlorine, liquefied.....lb.	.07 1/2	.09	Sulphite.....lb.	.03	.03 1/2
Carbon bisulphide.....lb.	.05 1/2	.06	Sulphate, G.P. salt.....100 lbs.	1.25	1.50
Carbon tetrachloride.....lb.	.10 1/2	.11	Sulphur Dioxide, Com.....lb.	.08	.11
Copper Carbonate.....lb.	—	28	Sulphur crude.....ton	25.00	30.00
Subacetate (Verdigris).....lb.	—	48	Flour Com'l., bbls.....100 lbs.	1.70	2.00
Powdered.....lb.	.40	.42	Roll, 100 p.c.....100 lbs.	2.95	3.15
Cyanide chlor. Mix., 73-76.....lb.	.27	.28	Flowers, 100 p.c.....100 lbs.	3.30	3.60
Sulphate, 98-99 p.c.....100 lbs.	—	8.37 1/2	Sulphuric Acid, Tank carlots	13.50	15.00
99 p.c. carlots, N.Y.....100 lbs.	8.40	8.50	60 deg., f.o.b. wks.....ton	19.00	21.00
Copperas, f.o.b. works.....100 lbs.	—	1.20	66 deg., f.o.b. wks.....ton	22.00	25.00
Fluorspar, Powdered.....ton	40.00	45.00	Oleum, f.o.b. wks.....ton	—	—
Acid Grade.....ton	—	50.00	Battery Acid car's per 100 lbs.	Nominal	Nominal
Fuel Oil, crude.....gal.	2.50	2.85	Tin, bichloride.....lb.	.21 1/2	.22 1/4
Refined.....gal.	3.75	3.80	Crystals.....lb.	.43	.45
Hydrofluoric Ac. 48 p.c. bbls.....lb.	.08	.09	Zinc, carbonate.....lb.	.18	.21
48 p.c. in carboys.....lb.	.11	.12	Chloride, Fused.....lb.	.09	.10
52 p.c. in carboys.....lb.	.11	.12	Granulated.....lb.	—	.13 1/2
Lactic Acid, 22 p.c.....lb.	.05	.07	Oxide, French.....lb.	.12	.13
Lead, Acetate, white crys.....lb.	.14	.14 1/2	Leaded.....lb.	.08 1/2	.10 1/2
Broken Cakes.....lb.	.13 1/2	.14	Sulphate.....lb.	.03 1/2	.04
Granulated.....lb.	.13 1/2	.14			
Arsenate, powdered.....lb.	.28	.30			
Paste.....lb.	.16	.17			
Nitrate.....lb.	—	.15			
Oxide, Litharge, Amer. pd.....lb.	.09	.13			
Foreign.....lb.	—	.13			
Red, American.....lb.	.10 1/2	.13			
Sulphate, basic.....lb.	—	.08 1/2			
White, Basic Carb., Amer.					
dry.....lb.	.09 1/2	.13			
in Oil, 100 lbs. or over.....lb.	—	.13			
English.....lb.	—	—			
Lithopone.....lb.	.07	.07 1/2			
Lime, hydrate.....100 lbs.	2.00	2.05			
Acetate.....gal.	.17	.22			
Sulphur solution.....lb.	.15	.16			
Manganese Chlor.....lb.	.15	.17			
Sulp.....lb.	.15	.17			
Magnesium.....ton	62.00	65.00			
f.o.b. N. Y.....ton	.03 1/2	.04			
Muriatic acid,					
18 deg. carboys.....100 lbs.	—	1.75			
20 deg. carboys.....100 lbs.	—	2.00			
22 deg. carboys.....100 lbs.	—	2.25			
Nickel oxide.....lb.	.40	.50			
Salts, single.....lb.	.14	.16			
double.....lb.	.12	.13			
Nitric acid, 63 deg. carboys.....lb.	.05	.05 1/2			
33 deg. carboys.....lb.	.06 1/2	.06 1/2			
40 deg. carboys.....lb.	.06 1/2	.07			
42 deg. carboys.....lb.	.07 1/2	.07 1/2			
Phosphoric Acid, 85-88 p.c.....lb.	.33	.38			
99 p.c. tech.....lb.	.21 1/2	.25 1/2			
Phosphorus red.....lb.	.60	.70			
Yellow.....lb.	.35	.40			
Sequeisulphide.....lb.	—	.42 1/2			
Plaster of Paris.....bbl.	1.50	1.60			
True Dental.....bbl.	1.75	2.00			
Potash Caustic, 88-92.....lb.	.30	.32			
Sticks.....100	1.00	1.10			
Potassium Bichromate.....lb.	—	.27			
Carbonate, calc. U.S.P.....lb.	.60	.65			
80-85 p.c.....lb.	.20	.25			
85-90 p.c.....lb.	—	.28			
90-95 p.c.....lb.	—	—			
96-98 p.c.....lb.	—	—			
Chlorate, cryst.....lb.	.19	.20			
Powdered, American.....lb.	—	.20			
Japanese.....lb.	.19	.20			
Muriate, basic 80 p.c.....lb.	—	—			
Foreign.....lb.	—	85.00			
Permanganate, Com'l.....lb.	.50	.55			
Prussiate, red.....lb.	1.05	1.10			
Yellow.....lb.	.38	.42			
Sulphate.....lb.	—	150.00			
*Nominal.					

Dinitrotoluol.....lb.	.38	.40
Diphenylamine.....lb.	.53	.58
Dioxynaphthalene.....lb.	—	—
"G" Salt.....lb.	.65	.75
Gammic Acid.....lb.	—	2.50
Hydrazobenzene.....lb.	1.50	2.00
Methylanthraquinone.....lb.	—	—
Monochlorobenzol.....lb.	.10	.12
Monothylaniline.....lb.	1.90	2.00
Naphthalenediamine.....lb.	—	—
a-Naphthol, crude.....lb.	.90	.95
b-Naphthol, distilled.....lb.	.48	.50
Sublimed.....lb.	.65	.75
a-Naphthylamine.....lb.	.32	.40
b-Naphthylamine, tech.....lb.	1.15	1.25
Sublimed.....lb.	—	2.00
Neuville Winter's Acid.....lb.	1.70	1.90
Nitrobenzol.....lb.	.15	.16 1/2
Nitrochlorobenzol.....lb.	.40	.45
Nitronaphthalene.....lb.	.30	.35
o-Nitrophenol.....lb.	.75	.85
p-Nitrotoluol.....lb.	—	1.35
Nitrotoleol.....lb.	—	1.35
o-Nitrotoluol.....lb.	.22	.25
Paranitraniline.....lb.	1.00	1.10
m-Phenylenediamine.....lb.	.90	1.10
p-Phenylenediamine.....lb.	2.60	3.00
Phthalic Anhydride.....lb.	—	.90
Pseudo-Cumol.....lb.	—	—
"P" Salt.....lb.	—	.62 1/2
Resorcin, U.S.P., see Fine Chemicals		
Resorcin, Technical.....lb.	3.50	5.00
Sodium Naphthionate.....lb.	—	1.10
Schaefer Salt.....lb.	.55	.60
Tetranitromethylaniline.....lb.	—	2.50
Tolidin.....lb.	—	1.65
o-Tolidine.....lb.	.25	.30
p-Tolidine.....lb.	.175	.200
m-Toluylenediamine.....lb.	1.25	1.35
Xylene, pure.....gal.	.40	.45
Xylene, Com.....gal.	.40	.45
Xylidine.....lb.	.45	.50

## COAL-TAR COLORS

ACID COLORS:		
Black.....lb.	1.15	1.70
Blue.....lb.	3.00	5.00
Brown.....lb.	1.25	2.00
Fuchsin.....lb.	2.50	3.50
Orange 11.....lb.	.45	.50
Orange 111.....lb.	1.00	1.25
Red.....lb.	1.10	1.20
Scarlet.....lb.	—	1.00
Violet 10B.....lb.	—	.65
Amidine Yellow R.....lb.	—	1.50
Alpine Yellow.....lb.	2.00	7.50
Alkaline Blue, Dom.....lb.	—	.475
Alkaline Blue, Imp.....lb.	—	8.00
Azo Carmine.....lb.	—	4.00
Azo Yellow.....lb.	—	2.00
Azo Yellow, green shade.....lb.	3.50	4.50
Brilliant Delphine B.S.....lb.	—	4.50
Erythrosine.....lb.	12.00	14.00
Fast Light Yellow, 2-G.....lb.	—	3.00
Fast Red, 6B extra, con't.....lb.	—	3.00
Granine.....lb.	8.75	9.25
Indigo 20 p.c. paste.....lb.	—	.75
Indigotine, conc.....lb.	3.00	3.50
Indigotine, paste.....lb.	1.50	1.60
Metanil Yellow.....lb.	1.50	1.60
Medium Green.....lb.	5.00	6.00
Naphthol Green.....lb.	—	1.50
Naphthylamine Red.....lb.	6.75	7.50
Nigrosine, Oil Sol.....lb.	—	.90
Orange, R. G., contract.....lb.	2.00	2.25
Orange Y conc.....lb.	.50	.40
Patent Blue, Swiss Type.....lb.	12.00	16.00
Ponceau.....lb.	—	1.00
Scarlet 2R.....lb.	1.00	1.10
Tartrazine, Dom.....lb.	1.25	1.40
Tartrazine, Imp.....lb.	10.00	11.00
Uranine.....lb.	6.00	7.00
Wool Green S. Swiss.....lb.	1.50	2.25
Yellow for Wool.....lb.	—	2.25

## DIRECT COLORS:

Black.....lb.	.95	1.10
Sky Blue.....lb.	3.25	3.75
Blue.....lb.	—	1.10
Brown.....lb.	1.55	1.75
Bordeaux.....lb.	1.75	2.50
Fast Red.....lb.	3.50	4.00
Fast Yellow.....lb.	1.50	2.00
Yellow.....lb.	2.00	2.50
Violet con't.....lb.	2.20	2.50
Benzo Purperine 10B.....lb.	3.50	4.00
Benzo Purperine 4B.....lb.	1.80	1.90
Chrysophenine, Dom.....lb.	—	2.50
Chrysophenine, Imp.....lb.	—	3.00
Congo Red 4B Type.....lb.	1.60	2.25
Diamine Sky Blue F. F.....lb.	5.00	5.25
Oxamine Violet.....lb.	7.00	7.50
Primuline, Dom.....lb.	—	3.00

## Dyestuffs, Tanning Materials and Accessories

## COAL-TAR CRUDES

*Benzol C. P.....gal.	.23	.33
(90 p.c.).....gal.	.27 1/2	.30
Creylic acid, crude, 95-97 p.c.....gal.	.65	.75
50 p.c.....gal.	.50	.55
25 p.c.....gal.	.30	.35
Cresol, U.S.P.....lb.	15 1/4	17
Cresote oil, 25 p.c.....gal.	.40	.45
Dip. oil, 25 p.c.....gal.	.40	.45
Naphthalene, balls.....lb.	.08	.11
Flake.....lb.	.06	.07
*Phenol.....lb.	.12	.17
Pitch, various grades.....ton	14.00	18.00
Solvent naphtha, waterwhitegal.	.22	.25
Crude heavy.....gal.	.16	.18
Toluol, pure.....lb.	.25	.30
*Commercial, 90 p.c.....lb.	.25	.30
Xylol, pure water white.....gal.	.40	.45
Commercial.....lb.	.30	.35

## INTERMEDIATES

Acid Benzoic (See fine Chemicals)		
Acid H.....lb.	1.50	1.60
Acid Metanilic.....lb.	—	1.60
Acid Naphthionic, Crude.....lb.	.75	.85
Refined.....lb.	1.00	1.10
Acid Phthalic, crude.....lb.	.25	.30
Refined.....lb.	—	.35
p-Amidophenol HCl, 98 p.c.....lb.	—	2.50
*Aminoazobenzene.....lb.	—	—
*Aniline Oil.....lb.	.31	.33
*Aniline Salts.....lb.	.34	.36
Aniline for red.....lb.	.60	.65
*Anthracene (80 p.c.).....lb.	.65	.70
Anthraquinone.....lb.	5.50	6.00
Benzaldehyde, Tech.....lb.	.65	.70
U.S.P. & F.P.C., see Aromatic Chemicals		
Benzidine Base.....lb.	1.10	1.20
Benzidine Sulphate.....lb.	.90	1.00
Benzoate of Soda, U.S.P.....lb.	.80	.85
Benzylchloride, 95-97.....lb.	.26	.28
Diamidophenol.....lb.	—	6.00
Dianisidine.....lb.	10.00	12.00
Dinitrophenol.....lb.	.30	.32
o-Dichlorobenzol.....lb.	.15	.20
Diphenylamine.....lb.	.22	.30
Diethylaniline.....lb.	1.35	1.50
Dimethylaniline.....lb.	.56	.58
Dinitrochlorobenzene.....lb.	.23	.28
Dinitronaphthalene.....lb.	.45	.50
*Nominal.		



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Heavy Grades

## Pure Gas Carbon Black

Superior Quality

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W

W

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*Acetic Anhydride, 85%  
Acetyl Chloride  
Carbon Tetrachloride  
Phosphorus Oxychloride  
Sulphur Chloride  
Other Chlorine Products  
Sodium Phosphate, U.S.P.  
Soda Caustic,  
Fused 76%/77%*

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BROKERS

## Intermediates

and

## Dye Bases

SPECIALTIES

Amidonaphthol Sulphonic Acids

Phthalic Anhydride

Nitrated Phenols



# CHEMICALS

For Fertilizers  
and Insectide Manufacturers

**Ammonia Phosphate  
Ammonia Sulphate  
Blue Vitriol  
Carbon Bisulphide  
Lime  
Pine Oil  
Turpentine**

**KATZENBACH & BULLOCK CO.**

76 John Street, New York, N. Y.

Boston Trenton Montreal Akron  
Chicago San Francisco Paris Buenos Ayres

Cable Address: KABOCK NEWYORK. All codes

# Natural Dyestuffs, Tanning Materials, Fixed Oils, and Fats

## OIL COLORS:

Black	.....lb.	.70	— 1.00
Blue	.....lb.	1.65	— 2.00
Orange	.....lb.	1.40	— 1.50
Red III	.....lb.	1.65	— 2.00
Red IV	.....lb.	1.80	— 3.50
Scarlet	.....lb.	1.75	— 2.00
Yellow	.....lb.	1.70	— 2.00
Nigrosine, spht. sol.	.....lb.	—	.85
Nigrosine, water sol., blue	.....lb.	—	.65
Jet	.....lb.	.90	— 1.00

## SULPHUR COLORS:

Black	.....lb.	.30	— .40
Blue Dom.	.....lb.	.80	— .90
Brown	.....lb.	.35	— .45
Green	.....lb.	1.00	— 2.00
Yellow	.....lb.	.90	— 1.00

## CHROME COLORS:

Alizarin Blue, bright	.....lb.	7.75	— 9.25
Alizarin, medium	.....lb.	6.25	— 7.50
Alizarin Brown, conc.	.....lb.	—	2.50
Alizarin Orange	.....lb.	—	1.90
Alizarin Red, W. S. Paste	.....lb.	5.00	— 10.00
Alizarin Yellow G.	.....lb.	—	1.35
Alizarin Yellow R.	.....lb.	—	1.50
Chrome Black, Dom.	.....lb.	1.25	— 1.35
Chrome Black, Imp.	.....lb.	2.20	— 2.50
Chrome Blue	.....lb.	2.50	— 2.75
Chrome Green, Dom.	.....lb.	1.50	— 1.70
Chrome Red	.....lb.	—	2.00

## BASIC COLORS:

Auramine, Single O. Dom.	.....lb.	—	2.25
Auramine, Double O. Imp.	.....lb.	—	3.50
Bismarck Brown Y.	.....lb.	.90	— 1.00
Bismarck Brown R.	.....lb.	1.20	— 1.30
Chrysoidine R	.....lb.	—	1.00
Chrysoidine Y	.....lb.	—	.90
Crystal Violet	.....lb.	5.00	— 5.25
Emerald Green, Crystals	.....lb.	—	8.00
Green Crystals, Brilliant	.....lb.	6.00	— 7.00
Indigo 20 p.c. paste	.....lb.	—	.75
Fuchsine Crystals, Dom.	.....lb.	4.00	— 5.00
Fuchsine Crystals, Imp.	.....lb.	12.00	— 12.50
Magenta Acid, Dom.	.....lb.	4.25	— 5.00
Magenta Crystals, Imp.	.....lb.	10.00	— 12.00
Malachite Green, Crystals	.....lb.	—	4.50
Malachite Green, Powd.	.....lb.	—	3.50
Methylene Blue, tech.	.....lb.	2.25	— 3.50
Methyl Violet	.....lb.	2.60	— 2.75
Phosphine G. Domestic	.....lb.	7.00	— 10.00
Rhodamine B, ex. cont.	.....lb.	—	27.00
Valonia, solid, 65 p.c. tan.	.....lb.	5.00	— 6.00
Victoria Blue B.	.....lb.	5.00	— 5.50
Victoria Blue, base, Dom.	.....lb.	—	6.00
Victoria Green	.....lb.	6.00	— 7.00
Victoria Red	.....lb.	7.00	— 8.00
Victoria Yellow	.....lb.	7.00	— 8.00

## NATURAL DYESTUFFS

Anatto, fine	.....lb.	.32	— .33
Seed	.....lb.	.05	— .07
Carmines No. 40	.....lb.	4.25	— 4.75
Cochineal	.....lb.	.65	— .80
Gambier, see tanning.	.....lb.	—	—
Indigo, Bengal	.....lb.	2.75	— 3.00
Oudes	.....lb.	2.25	— 2.75
Guatemala	.....lb.	2.00	— 2.25
Kurpaha	.....lb.	2.00	— 2.25
Madras	.....lb.	.90	— 1.10
Madder, Dutch	.....lb.	—	.28
Nutgalls, blue Aleppo	.....lb.	—	.75
Chinese	.....lb.	.30	— .32
Persian Berries	.....lb.	—	—
Quercitron Bark, see tanning.	.....lb.	—	—
Turmeric, Madras	.....lb.	.13 1/4	— .14
Alepey	.....lb.	—	.10

## DYEWOODS

Barwood	.....lb.	.06	— .08
Camwood, chips	.....lb.	.18	— .20
Fustic, sticks	.....ton	30.00	— 35.00
Chips	.....lb.	.04	— .06
Hypernic, chips	.....lb.	.07	— .09
Logwood Sticks	.....ton	25.00	— 35.00
Chips	.....lb.	.03 1/2	— .05 1/4
Quercitron, see tanning.	.....lb.	—	—
Red Saunders	.....lb.	.20	— .22

## EXTRACTS

Archil, Double	.....lb.	.17	— .20
Triple	.....lb.	—	.19
Concentrated	.....lb.	.20	— .25
Catch, Mangrove, seen tanning.	.....lb.	—	—
Rangoon, boxes	.....lb.	.16	— .18
Liquid	.....lb.	.12	— .14
Tablet	.....lb.	.14	— .15
Cudbear, French	.....lb.	—	—
English	.....lb.	.22	— .26
Concentrated	.....lb.	—	—
*Nominal.	.....lb.	—	—

Flavine	.....lb.	1.00	— 1.50
Fustic, Solid	.....lb.	.22	— .27
Crystals 100 p.c.	.....lb.	.30	— .40
Extract 42 deg.	.....lb.	.14	— .16 1/4
Liquid, 51 deg.	.....lb.	.15	— .19
Gall	.....lb.	.25	— .27
Hematin Extract 51 deg.	.....lb.	.12	— .13 1/2
Crystals, 100 p. c.	.....lb.	.27	— .28
Hypernic, liquid, 51 deg.	.....lb.	—	.24
Indigo, natural	.....lb.	2.00	— 2.50
Extract	.....lb.	.30	— .37
Indigotine, 100 p.c. pure	.....lb.	3.00	— 3.50
Logwood, solid	.....lb.	—	.19
Crystals, 100 p.c.	.....lb.	—	.22
51 deg., Twaddle	.....lb.	—	.11
Contract	.....lb.	.10 1/4	— .10 3/4
Osage Orange, Extract 42 deg.	.....lb.	.09	— .10
Crystals, 100 p.c.	.....lb.	—	.20
Paste	.....lb.	—	.10
Persian Berries	.....lb.	—	—
Quebracho, see tanning.	.....lb.	—	—
Quercitron, 51 deg.	.....lb.	.06 1/4	— .07 1/4
Powdered, 100 p.c.	.....lb.	.13	— .14

## MISCELLANEOUS DYESTUFFS

Albumen, Egg	.....lb.	1.65	— 2.00
Blood, imported	.....lb.	.80	— .85
Domestic	.....lb.	.55	— .60
Prussian blue	.....lb.	.65	— .80
Soluble	.....lb.	.65	— .80
Turkey Red Oil	.....lb.	.15	— .20
Zinc Dust, prime heavy	.....lb.	.12	— .14
100-lb. tins	.....lb.	—	.12
520-lb. casks	.....lb.	—	.11
Carload lots	.....lb.	—	.10

## DEXTRINES AND STARCHES

British Gum	.....per 100 lbs.	8.00	— 8.50
Dextrine, Corn, white or yellow	.....per 100 lbs.	6.75	— 7.00
Potato, white or canary	.....lb.	.17	— .18
Starch, Powd., bags & bbls.	.....lb.	—	5.35
Pearl, Globe, bags & bbls.	.....lb.	—	5.20
Potato, Domestic	.....lb.	.08 1/2	— .09
Imported, duty paid	.....lb.	.08 1/2	— .09

## RAW TANNING MATERIALS

Algarobilla	.....ton	185.00	— 200.00
Divi Divi	.....ton	74.00	— 76.00
Hemlock Bark	.....ton	15.00	— 16.00
Mangrove, African, 38 p.c.	.....ton	65.00	— 70.00
Bark, S. A.	.....ton	60.00	— 65.00
Myrobalans	.....ton	50.00	— 60.00
Oak Bark	.....ton	15.00	— 16.00
Ground	.....ton	—	17.50
Quercitron Bark rough	.....ton	13.00	— 15.00
Ground	.....ton	27.00	— 28.00
Sumac, Sicily, 27 p.c. tan.	.....ton	105.00	— 115.00
Virginia, 25 p.c. tan.	.....ton	75.00	— 85.00
Valonia Cups	.....ton	—	—
Beard	.....ton	—	—
Wattle Bark	.....ton	70.00	— 75.00

## TANNING EXTRACTS

Chestnut, ordinary, 25 p.c. tan, bbls.	.....lb.	.03	— .03 1/4
Clarified, 25 p.c. ton, bbls.	.....lb.	—	.03 1/2
Crystals, ordinary	.....lb.	—	—
Clarified	.....lb.	—	—
Gambier, 25 p. c. tan	.....lb.	.17	— .18
Common	.....lb.	.09	— .11
Cubes, Singapore	.....lb.	.18	— .20
Cubes, Java	.....lb.	.14	— .16
Hemlock, 25 p.c. tan	.....lb.	.05	— .05 1/4
Larch, 25 p.c. tan	.....lb.	.04 1/4	— .04 1/2
Crystals, 50 p.c. tan	.....lb.	.08 1/4	— .08 1/2
Mangrove, 55 p.c. tan	.....lb.	.09	— .10
Liquid, 25 p.c. tan	.....lb.	.08	— .10
Muskegon, 23-30 p.c. tan, 50 p.c. total solids	.....lb.	.01 1/4	— .02 1/4
Myrobalans, liq., 23-25 p.c. tan	.....lb.	Nominal	—
*Solid, 50 p.c. tan	.....lb.	—	—
*Nominal	.....lb.	—	—

Oak Bark, liquid, 23-25 p.c. tan	.....lb.	—	.49 1/4
Quebracho, liquid, 35 p.c.	.....lb.	—	.07 1/2
35 p.c. tan, untreated	.....lb.	—	.06 1/2
35 p.c. tan, bleaching	.....lb.	—	.08
Solid, 65 p.c. tan, ordinary	.....lb.	—	.12
*Clarified	.....lb.	—	—
Spruce, liquid, 20 p.c. tan, 50 p.c. total solids	.....lb.	.01 1/4	— .01 1/4
Sumac, liquid, 25 p.c. tan	.....lb.	.06 1/2	— .08
Valonia, solid, 65 p.c. tan	.....lb.	Nominal	—

## Oils

### ANIMAL AND FISH (Carloads)

Cod Newfoundland	.....gal.	—	1.20
Domestic, prime	.....gal.	1.10	— 1.15
Liver, Newfoundland	.....bbl.	90.00	— 92.00
Norwegian	.....bbl.	—	130.00
Degras, American	.....lb.	.07	— .08 1/4
English	.....lb.	.08	— .08 1/4
Neutral	.....lb.	.14	— .18
Horse	.....lb.	.15	— .16
Lard, prime	.....gal.	1.80	— 1.85
Off prime	.....gal.	1.70	— 1.75
No. 1	.....gal.	—	1.35
Extra, No. 1	.....gal.	—	1.45
No. 2	.....gal.	—	1.25
Menhaden, Light strained	.....gal.	1.20	— 1.23
Yellow, bleached	.....gal.	1.22	— 1.25
White, bleached, winter	.....lb.	1.24	— 1.27
*Northern, crude	.....gal.	—	.40
Southern, crude, f.o.b. plant	.....gal.	—	.25
Neatsfoot, 20 deg.	.....gal.	—	2.25
30 deg., cold test	.....gal.	—	2.15
40 deg., cold test	.....gal.	1.95	— 2.00
*Dark	.....gal.	—	1.55
*Prime	.....gal.	—	1.75
Oleo Oil	.....lb.	.26 1/4	— .26 3/4
Red (Crude Oleic Acid)	.....lb.	.16 1/2	— .17
Saponified	.....lb.	.16 1/2	— .17
Sperm bleached winter	.....gal.	—	2.00
38 deg., cold test	.....gal.	—	1.95
45 deg., cold test	.....gal.	—	1.95
Natural winter, 38 deg., cold test	.....gal.	1.95	— 2.00
Stearic, single pressed	.....lb.	—	.23
Double pressed	.....lb.	—	.28 1/4
Triple pressed	.....lb.	—	.30
Tallow, acidless	.....gal.	1.60	— 1.75
Prime	.....gal.	—	1.55
Whale, natural winter	.....gal.	1.25	— 1.30
Bleached, winter	.....gal.	1.30	— 1.35

### VEGETABLE OILS

Castor, No. 1 bbls.	.....lb.	—	.21
Cases	.....lb.	.22	— .23 1/4
No. 3	.....lb.	.18 1/4	— .19
China Wood Oil, bbls.	.....lb.	—	.22 1/4
Coconut, Dom. Ceylon, bbls.	.....lb.	.18	— .18 1/4
Tanks	.....lb.	.17 1/4	— .18
Cochin, bbls bbls., Dom.	.....lb.	.19 1/4	— .20
Tanks	.....lb.	.18 1/4	— .19
Manila, tanks, coast	.....lb.	.17	— .17 1/4
Corn, refined, bbls.	.....lb.	.22 1/4	— .23 1/4
Crude, Tanks	.....lb.	—	.16
Cottonseed, Crude, f. o. b. mills, in tanks	.....lb.	.19 1/4	— .20
Summer, yel., prim., bbl. lot	.....lb.	—	.32
*White	.....lb.	—	—
*Winter, yellow	.....lb.	.23 1/4	— .25
Linseed, raw car lots	.....gal.	—	1.75
5 barrel lots	.....gal.	—	1.75
Boiled, 5-bbl. lots	.....gal.	—	1.75
Double Boiled, 5-bbl. lot	.....gal.	—	1.75
*Olive, denatured	.....gal.	—	1.77
Edible	.....lb.	3.15	— 3.20
Foots	.....lb.	.19 1/4	— .19 1/2
Palm, Lagos casks	.....lb.	.16 1/4	— .16 1/2
*Benin	.....lb.	—	.16 1/2
*Niger	.....lb.	.16	— .16 1/4
*Palm Kernel, domestic	.....lb.	—	—
*Imported	.....lb.	—	—
Peanut Oil, refined	.....lb.	.26	— .28
Crude, f.o.b. mills	.....lb.	.22	— .22 1/4
Oriental, coast, tanks	.....lb.	—	.32
Poppy Seed	.....gal.	2.75	— 3.00
Rapeseed, ref'd, bbl.	.....gal.	1.60	— 1.65
*Blown	.....gal.	1.65	— 1.70
*Sesame, domestic, edible	.....gal.	—	2.50
*Imported	.....gal.	—	—
Soya Bean, Tanks, Pac.Coast	.....lb.	.16 1/4	— .16 1/2
New York, bbls.	.....lb.	.18	— .18 1/4

### GREASES, LARDS, TALLOW (New York Markets)

Grease, *white	.....lb.	—	.18 1/4
Yellow	.....lb.	.13	— .13 1/4
House	.....lb.	.14	— .15
*Nominal	.....lb.	—	—

# Greases, Cocoa, Shellac, Naval Stores, and Miscellaneous

Grease, Brown .....	lb.	.10½	.12½
Lard City .....	lb.	—	.29½
Compound .....	lb.	—	.24½
Stearine, lard .....	lb.	—	.33
Oleo .....	lb.	—	.20
Tallow, edible .....	lb.	—	.20
City, Loose .....	lb.	—	.18½
(Chicago Markets)			
Tallow, edible .....	lb.	—	.20
City Fancy .....	lb.	—	.19½
Prime Packers .....	lb.	.19	.19½
Grease, Choice White .....	lb.	.18½	.18½
"A" White .....	lb.	.17½	.17½
"B" White .....	lb.	.14½	.15
Yellow .....	lb.	.13	.13½
Brown .....	lb.	.11	.11½
Bone .....	lb.	.10½	.12
House .....	lb.	.13½	.14½
Stearine, prime oleo .....	lb.	.20	.20½
Lard, city steam .....	lb.	—	.29½

OIL CAKE AND MEAL		
Cottonseed Cake, f.o.b. Texas .....	—	—54.50
f.o.b. New Orleans .....	—	—
Cottonseed, Meal, f.o.b. Atlanta .....	—	—56.00
Columbia .....	—	—53.00
New Orleans .....	ton	—
Corn Cake .....	short ton	55.00
Meal .....	short ton	59.00
Linseed cake, dom. .....	short ton	—64.26
Linseed Meal .....	short ton	—80.00
*Nominal.		

SHELLAC		
*D. C. ....	lb.	—
*Diamond "I" .....	lb.	—
*Fine Orange .....	lb.	1.10
Second Orange .....	lb.	—
*T. N. ....	lb.	1.00
A. C. Garnet .....	lb.	—1.10
*Button .....	lb.	—1.20
Regular bleached .....	lb.	—1.10
Bone, dry .....	lb.	—1.25

NAVAL STORES (Carloads ex-dock)		
*Spirits Turpentine in bbls. gal.	—	—1.95
Wood Turpentine, steam distilled, bbls. ....	gal.	—1.65
*Turpentine, Destructive distilled, bbls. ....	lb.	1.50
Pitch, prime .....	200 lb. bbl.	8.50
Rosin, common .....	280 lb. bbl.	—17.00
Medium .....	bbl.	—19.00
Fale .....	bbl.	—26.00
Tar, kiln-burnt, pure 50-gal.	bbls.	12.50
*Nominal		

## Miscellaneous

### COCOA

Accura .....	lb.	.18	.19
Bahia .....	lb.	.22	.23
Caracas .....	lb.	.19	.20
Hayti .....	lb.	.19	.20
Maracaibo .....	lb.	.19	.20
Trinidad .....	lb.	.25	.26

# Imports and Exports of Drugs and Chemicals, Dyestuffs, Etc.

Imports from Oct. 24 to Nov. 1

## Imports

**ACIDS**—Citric, Crystals, 25 kgs., Prossen & Co., London; Oxalic, 17 bbls., N. M. Neilson, Inc., Christiania; Phosphoric, 38 pkgs., Brown Bros. & Co., London; Tartaric, 100 bbls., National City Bank, Genoa; 50 bbls., E. M. Javitz & Co., Genoa; 40 bbls., Keene & Co., Genoa; 20 csk., Brown Bros. & Co., London; 25 bbls., Brown Bros. & Co., Liverpool

**ALMONDS**—Bitter, 190 bbls., H. P. Winter & Co., Genoa; 200 bbls., Bank of America, Naples; 198 bbls., J. Kutsukian, Genoa; 300 bbls., W. Brandt's Sons & Co., Catania; 200 bbls., 40 bbls., 100 bbls., 113 bbls., 150 bbls., Brown Bros. & Co., Catania; 15 bbls., First National Bank of Chicago, Catania; 50 bbls., Bank of New York, Catania; 40 bbls., Bank of New York, Catania; 300 bbls., Grace Bros. & Co., Catania; 100 bbls., Naumburg & Co., Catania; 150 bbls., 85 bbls., Irving National Bank, Catania; 80 bbls., 250 bbls., Brandt's Sons & Co., Catania; 270 pkgs., British Bank of South Africa, Catania; 150 bbls., Continental & Commercial National Bank of Chicago, Barcelona; 300 bbls., A. L. Causee, Genoa; 100 csk., Fruhling & Goschen, Genoa; 300 csk., Smith & Schipper, Genoa; 100 csk., J. Ritter, Genoa; 10 bbls., Brown Bros. & Co., Catania; 200 bbls., 300 bbls., Fruhling & Goschen, Catania; 175 bbls., Irving National Bank, Catania; 100 bbls., First National Bank, Catania; 430 bbls., Smith & Schipper, Catania; 100 bbls., Austin, Nichols & Co., Catania; 100 bbls., 100 bbls., Lazard Freres, Catania; 105 pkgs., Banca Commercial Italiana, Catania; 200 bbls., H. Winter & Co., Catania; 900 bbls., Brown Bros. & Co., Palermo; 250 bbls., British Bank of South America, Palermo; 250 pkgs., British Bank of South America, Malaga; 824 pkgs., Bank of New York, Malaga; 100 bbls., Irving National Bank, Malaga; Sweet, 100 bbls., 30 cs., W. Brandt's Sons & Co., Catania; 500 bbls., Irving National Bank, Catania; 90 cs., British Bank of South America, Genoa; 100 cs., Spett Bank of New York, Genoa; 300 cs., G. d'Agata & Figli, Genoa; 395 cs., Irving National Bank, Genoa; 250 bbls., Konig Bros. & Co., Catania; 250 bbls., Equitable Trust Co., Catania; 250 bbls., British Bank of South America, Catania; 300 cs., H. P. Winter & Co., Catania; 200 bbls., Lloyds Bank, Malaga; 400 bbls., Irving National Bank, Malaga; 500 bbls., Guaranty Trust Co., Malaga; 1,000 bbls., Philadelphia National Bank, Malaga; 250 bbls., A. Brown & Sons, Malaga; 500 bbls., 228 bbls., 100 bbls., 504 bbls., Brown Bros. & Co., Malaga; 625 bbls., Brown Bros. & Co., Palermo

**AMMONIUM CARBONATE**—15 csk., J. L. & D. S. Riker, Liverpool

**ANTIMONY SULPHATE**—15 bbls., W. A. Brown & Co., Liverpool; Sulphide, 5 csk., Stanley Doggett & Co., London

**ARGOLS**—232 bbls., Chas. Pfizer & Co., Lisbon

**BALSAMS**—Copaiba, 17 cs., Bloom Bros., Central American ports; 25 cs., R. A. Putnam & Co., Inc., Maracaibo; Tolu, 200 cs., Gustave Amsinck & Co., Para; 61 cs., New York Overseas Corporation, Para

**BARK**—Cinchona, 550 bbls., 250 bbls., Powers-Weightman-Rosengarten Co., Batavia; 300 bbls., McKesson & Robbins, Batavia; 16 bbls., L. Hopkins; Medicinal, 407 bbls., Marden, Orth & Hastings, Monte Cristy; Quillaya, 131 bbls., H. W. Peabody & Co., Antofagasta

**BAY RUM**—16 bbls., M. Baum, E. Hijos, San Juan

**BEANS**—Castor, 5 bbls., Blackburn Trading Co., Puerto Plata; 93 bbls., 12,246 bbls., 3 bbls., Gustave Amsinck & Co., Inc., Puerto Plata; 46 bbls., Gaston, Williams & Wigmore, Inc., Sanchez; Cura, 500 bbls., Lawrence, Johnson & Co., Lisbon; 11 bbls., F. Ricart & Co., San Domingo; 167 bbls., W. R. Grace & Co., Macoris; 100 bbls., Marden, Orth & Hastings of West Indies, Macoris; 228 bbls., 300 bbls., 223 bbls., J. J. Julia & Co., Sanchez; 457 bbls., F. Ricart & Co., Inc., Sanchez; 300 bbls., Yglesias & Co., Inc., Sanchez; 254 bbls., 159 bbls., Mecke & Co., Sanchez; 153 bbls., W. Schall & Co., Sanchez; 484 bbls., W. R. Grace & Co., Sanchez; 248 bbls., Gustave Amsinck & Co., Inc., Puerto Plata; 45 bbls., W. Schall & Co., Puerto Plata; 60 bbls., W. R. Grace & Co., Puerto Plata; 5 bbls., Blackburn Trading Co., Puerto Plata; 162 bbls., W. R. Grace & Co., Samana; 37 bbls., J. J. Julia & Co., Puerto Plata; 500 bbls., Guaranty Trust Co., Buenos Aires; 9,000 bbls., National City Bank, Buenos Aires; 500 bbls., Bank of New York, Buenos Aires; 600 bbls., 64 bbls., Brown Bros. & Co., Colombo; 23 bbls., Williant, Haves & Co., Paramaribo; 100 bbls., H. Mann & Co., Port de Paix; 400 bbls., Brown Bros. & Co., Port de Paix; R. Hachtmann, Cape Haytien; 50 bbls., H. Mann & Co., Cape Haytien; 400 bbls., Hageneyer Trading Co., Para; 450 bbls., National Park Bank; 34 bbls., Winter Ross & Co., Para; 9,500 bbls., Bank of New York, Bahia; 8,000 bbls., Guaranty Trust Co., Bahia; 2,200 bbls., London & Brazilian Bank, Ltd., Bahia; 2,050 bbls., National City Bank, Bahia; 2,000 bbls., 1,000 bbls., Brown Bros. & Co., Bahia; 120 bbls., 126 bbls., Curacao Trading Co., Maracaibo; 615 bbls., R. Desvernine, La Guayra; 310 bbls., Commercial Bank of Spanish America, Maracaibo; 165 bbls., Glover Bros., Maracaibo; 200 bbls., Brown Bros. & Co., Liverpool; 118 bbls., W. Schall & Co., Paramaribo; 190 bbls., Willard Hawes & Co.,

Paramaribo; 100 bbls., T. Deburgo, Carapano; 136 cs., Muller, McLean & Co., Sourabaya; 145 bbls., Commercial Bank of Spanish America; 136 bbls., Mercantile Bank of America, Inc., Venezuelan ports; 425 bbls., Yglesias & Co., Inc., Venezuelan ports; 20 bbls., R. F. Downing & Co., Porto Cabello; 634 bbls., Mercantile Bank of America, Porto Cabello; 2,000 bbls., Foreign Trade Banking Corporation, Bahia; 6,000 bbls., 2,291 bbls., W. R. Grace & Co., Bahia; 1,000 bbls., 1,250 bbls., Guaranty Trust Co., Bahia; 2,000 bbls., American Exchange National Bank, Ltd., Bahia; 208 bbls., London & Brazilian Bank, Ltd., Bahia; 5,523 bbls., National City Bank of New York, Bahia; 6,077 bbls., Bank of New York, Bahia; 1,000 bbls., Balfour, Williamson & Co., Bahia; 500 bbls., Irving National Bank, Bahia; 1,500 bbls., National City Bank of New York; 1,000 bbls., Produce & Warrant Co., Bahia; 2,317 bbls., J. H. Kayne & Co., Liverpool; 1,332 bbls., 2,050 bbls., Oelrichs & Co., Liverpool; 118 bbls., American Trading Co., Maracaibo; 4 bbls., F. Ricart & Co., Macoris; 130 bbls., Ultrameres Corporation, La Romana; 50 bbls., J. Aron & Co., Inc., Sanchez; 45 bbls., R. Desvernine, Macoris; 1,908 bbls., F. Ricart & Co., Sanchez; 148 bbls., Ultrameres Corporation, Sanchez; 315 bbls., Yglesias & Co., Inc., Sanchez; 25 bbls., Yglesias & Co., Inc., Samana; 130 bbls., Gustave Amsinck & Co., Inc., Samana; 90 bbls., Yglesias & Co., Inc., Puerto Plata; 105 bbls., National City Bank, Batavia; 1,733 bbls., National City Bank, Samarang; Powdered, 75 bbls., Willard, Hawes & Co., Liverpool; Lucust, 301 bbls., Forwood & Sellar, Lisbon; Tonka, 3 csk., Scholtz & Co., Porto Cabello; Vanilla, Cuts, 34 cs., Dodge & Olcott Co., Vera Cruz; Whole, 61 cs., Dodge & Olcott Co., Vera Cruz

**BERRIES**—Juniper, 25 bbls., B. Westergaard, Halifax

**CAMPBOR**—Refined, 4 cs., 15 cs., Brown Bros. & Co., London; Slabs, 5 cs., Brown Bros. & Co., London; 10 cs., C. L. Huisking, Inc., London

**CARBON**—42 cs., O. McLagan, Liverpool; Blocks, 18 csk., H. W. Knott, London

**CASEINE**—1,270 bbls., 603 bbls., 970 bbls., Brown Bros. & Co., Buenos Aires; 464 bbls., First National Bank of Boston; 855 bbls., National City Bank, Buenos Aires; 100 bbls., National City Bank, Rouen

**COPRA**—27 bbls., J. Aron & Co., Inc., Samana, 1,689 bbls., Brown Bros. & Co., Penang

**CUTTLEFISH BONE**—30 cs., E. Baccari, Genoa

**DIVI DIVI**—176 bbls., Marden, Orth & Hastings, Monte Cristy; 3,100 bbls., 2,204 bbls., 2,633 bbls., Suzarte & Whitney, Maracaibo; 13,202 bbls., Curacao Trading Co., Curacao; 3,635 bbls., 595 bbls., Federal Export Co., Curacao; 3,738 bbls., Paris & Co., Maracaibo; 1,145 bbls., Gustave Amsinck & Co.,



- Inc., Curacao; 3,000 bgs., American Trading Co., Curacao; 1 bg., A. Delder, Kingston
- DRUGS—Crude**, 13 bls., S. B. Penick & Co., Nassau; **Miscellaneous**, 15 cs., Brown Bros. & Co., 1 bx., Lederle Antitoxin Laboratory, Puerto Plata; 4 cs., Schieffelin & Co., Havre; 1 cs., Klipstein & Co., Havre; 1 cs., F. B. Vandegrift & Co., Havre; 1 cs., O. G. Hempstead & Sons, Havre; 1 cs., H. K. Mulford, Smyrna
- DYESTUFFS—Alizarine, Flake**, 6 csks., W. A. Foster, London; 5 csks., W. A. Foster, London; **Aniline**, 10 bbls., 4 cs., W. R. Grace & Co., Sourabaya; **Coal Tar dyes**, 20 cs., Thomas Meadows & Co., Liverpool; **Gambier, Cube**, 747 bgs., Brown Bros. & Co., Singapore; **Mangrove Bark**, 137 bgs., R. Fabien & Co., Samana; 253 bgs., Gaston, Williams & Wignmore, Inc., Samana; 4,000 bgs., Roberts, Evans & Woodhead, Singapore; 225 bgs., J. J. Julia & Co., Samana; 250 seroons, 1,750 bgs., Marden, Orth & Hastings, Monte Cristo
- ERGOT RYE—29 csks.**, McKesson & Robbins, Barcelona
- EXTRACTS—Licorice**, 50 cs., Gaston, Williams & Co., Inc., Barcelona; **Logwood**, 153 bbls., Hayti Manufacturing Co., Cape Haytien; **Miscellaneous**, 5 cs., Nuyens & Co., Havre; **Quebracho**, 20,000 bgs., 20,000 bgs., New York Quebracho Extract Co., Buenos Aires; 3,524 bgs., Mechanics National Bank, Buenos Aires; 2,000 bgs., Guaranty Trust Co., Buenos Aires; **Root Beer**, 2 cs., Austin, Nichols & Co., Monte Cristo
- GUMS—Aloes**, 274 cs., American Trading Co., Aruba; 50 cs., Marden, Orth & Hastings, Inc., Aruba; 50 cs., R. Desvervigne, Aruba; 240 cs., Suzarte & Whitney, Aruba; 7 cs., R. F. Downing & Co., Liverpool; 85 cs., Suzarte & Whitney, Curacao; 100 cs., Meyer & Co., Curacao; 623 cs., National Bank of Commerce, Padang; **Benjamin**, 230 cs., Brown Bros. & Co., Singapore; **Chicle**, 206 bbs., American Chicle Co., Progresso; **Tragacanth**, 49 bgs., Serantis Freres, Smyrna; 49 cs., Thurston & Braidich, London
- GLYCERIN—7 tanks**, W. R. Grace & Co., Samana
- HERBS—Medicinal Miscellaneous**, 56 bls., Bayersdorfer, Genoa
- IRON OXIDE—20 csks.**, J. H. Rhodes & Co., Liverpool; 42 csks., J. A. McNulty, Liverpool
- JUNIPER BERRY JUICE—10 csks.**, B. Westergaard & Co., Bergen
- LEAVES—Henna, Powdered**, 12 bgs., Schieffelin & Co., London; 5 bls., P. E. Anderson & Co., London; 5 bls., A. Stallman & Co., London; 134 bgs., Peck & Velsor, London; **Laurel**, 370 bls., A. N. Davis, Piraeus; **Medicinal, Miscellaneous**, 224 bls., A. Stallman & Co., Piraeus; **Saffron**, 9 cs., P. E. Anderson & Co., Havre; **Thyme**, 116 bgs., L. Johnson & Co., Seville
- LEECHES—11 tubs**, C. Yacobellis, Genoa; 6 tubs, A. Cardillo; 6 tubs, P. Riola, Genoa
- LIME TARTRATE—500 bgs.**, Bank of New York, Piraeus
- MAGNESIUM COMPOUNDS—20 cs.**, New Jersey Asbestos Co.
- MEDICINES—Miscellaneous**, 9 pkgs., 10 cs., I. Personeni, Genoa; 1 cs., Brown Bros. & Co., London; 10 cs., E. Fougere & Co., London
- MERCURY—300 cylinders**, National City Bank, Genoa; 18 flasks, W. Schall & Co., Vera Cruz
- OILS—Coco Nut**, 1,963 pkgs., Brown Bros. & Co., Colombo; Quantity (in bulk), Clementz & Son, Sourabaya; **Cod**, 175 csks., Redden & Martin, St. John's; 5 csks., Bowering & Co., Ltd., St. John's; 150 csks., E. F. Drew & Co., St. John's; 200 csks., Brown Bros. & Co., St. John's; **Codliver**, 25 bbls., A. Stallman & Co., Bergen; 70 bbls., United Drug Co., Bergen; 50 bbls., Burroughs & Co., Bergen; 150 bbls., Scott & Bowne, St. John's; 116 csks., N. S. Cummins, St. John's; 125 bbls., Brown Bros. & Co., St. John's; 50 cs., Schieffelin & Co., Christiania; **Cottonseed**, 35 bbls., W. R. Grace & Co., St. Marco; **Linseed**, 603 bbls., Brown Bros. & Co., London; **Olive**, 400 cs., Banca Commercial Italiana; 210 cs., Banca Commercial Italiana, Genoa; 40 cs., Cella Bros., Inc., Genoa; 668 cs., Credito Italiana Co., Genoa; 1 cs., Bernard Judea & Co., Liverpool; 1,040 cs., Bragno & Mustari, Genoa; 116 cs., Banca Italiana di Soronto, Genoa; 150 cs., Strohmeier & Arpe Co., Genoa; 200 cs., W. A. Taylor & Co., Genoa; 500 cs., F. Malatesta, Barcelona; 1,000 cs., Italian Discount & Trust Co., Barcelona; 500 bbls., 50 cs., Strohmeier & Arpe Co., Barcelona; 50 cs., F. R. Damogino & Co., Barcelona; 998 cs., Equitable Trust Co., Barcelona; 94 cs., Mediterranean Products Co., Barcelona; 50 bbls., N. Pucini, Barcelona; 50 cs., Marden, Orth & Hastings Corporation, Seville; 50 cs., A. Ferrari, Genoa; 1,000 cs., Banca Commercial Italiana, Malaga; 5 bbls., 10 cs., American Express Co., Malaga; 300 bbls., First National Bank, Malaga; 724 cs., Guaranty Trust Co., Malaga; 10 bbls., Brown Bros. & Co., Malaga; 6 bbls., G. Calos, Piraeus; 2 cs., Brown Bros. & Co., Piraeus; **Sod**, 15 bbls., Brown Bros. & Co., Liverpool; **Sulphur**, 60 bbls., National Park Bank, Seville; 85 bbls., Marden, Orth & Hastings Corporation, Seville; 145 bbls., Ricardo, Gomez & Dietliu, Malaga
- OILS, ESSENTIAL—300 cs.**, J. B. Horner, Inc., Genoa; 3 drums, Equitable Trust Co., Malaga; 4 pkgs., Brokwn Bros. & Co., Malaga; **Aniseed**, 50 cs., Dodge & Olcott Co., Liverpool; **Cassia**, 40 cs., Brown Bros. & Co., Liverpool; **Citronella**, 6 drums, J. D. Lawson & Co., Inc., London; **Copaiba**, 46 cs., Winter, Ross & Co., Para; **Lemon**, 200 cs., Felice Periboso, Genoa; **Linaloe**, 3 cs., W. Schall & Co., Vera Cruz; 10 cs., 10 cs., 16 cs., Brown Bros. & Co., Vera Cruz; **Orange**, 6 cs., Brown Bros. & Co., London; 14 cs., J. E. Kerr & Co., Kingston; **Peppermint**, 100 cs., 100 cs., Equitable Trust Co., London; 92 cs., Brown Bros. & Co., London; 50 cs., Irving National Bank, London; 100 cs., Irving Trust Co., London; 28 cs., C. L. Huisking, Inc., London; 25 cs., 10 cs., Brown Bros. & Co., Liverpool; **Rose**, 5 cs., McAndrews & Forbes Co., Smyrna; 2 cs., A. Andonian, Smyrna; 3 cs., Brown Bros. & Co., Smyrna
- OPIUM—12 cs.**, 10 cs., 15 cs., Brown Bros. & Co., Smyrna; 50 cs., 30 cs., Gulbenkian Freres Co., Smyrna; 20 cs., Pandaleon Bros. Smyrna; 10 cs., S. & E. Elladi, Smyrna
- OXIDE, YELLOW—1 cs.**, F. Ricart & Co., Macoris
- PERFUMERY—1 cs.**, Guaranty Trust Co., Genoa; 5 drums, Guaranty Trust Co., London; 16 drums, A. Chiris & Co., London; 21 cs., J. Personeni, Genoa; 100 1/4 cs., 4 1/2 cs., George Lueders & Co., Catania; 23 1/4 cs., Grace Bros. & Co., Ltd., Catania; 60 1/4 cs., Mediterranean Trading Co., Catania; 4 cs., E. Fougere & Co., Havre; 2 cs., Maurice Levy, Havre; 8 cs., B. E. Levy, Havre; 54 cs., Park & Tilford, Havre; 31 cs., F. R. Arnold & Co., Havre; 84 cs., A. H. Smith & Co., Havre; 40 1/4 cs., Barclay & Co., Genoa; 4 1/2 cs., George Lueders & Co., Genoa; 77 1/4 cs., Grace Bros., Genoa; 5 pkgs., Guaranty Trust Co., Malaga
- PHARMACEUTICAL PRODUCTS—1 cs.** Gustave Amsinck & Co., Ltd., South Pacific ports; 7 cs., E. Fougere & Co., Havre; 2 cs., Samson Rosenblatt, Havre
- POTASSIUM PRUSSATE, YELLOW—1 cs.**, Brown Bros. & Co., London
- QUEBRACHO WOOD—529 pkgs.**, New York Quebracho Extract Co., Santa Fe, 273 cs., New York Quebracho Extract Co., Buenos Aires
- QUININE—Hydrochloride**, 3 cs., 2 cs., 6 cs., Brown Bros. & Co., London; **Sulphate**, 13 cs., Brown Bros. & Co., London; 2 cs., Guaranty Trust Co., Havre
- RICE POWDER—16 cs.**, A. Bourjois, Havre
- ROCK CRYSTALS—95 cs.**, Diamond Drill Carbon Co., Rio de Janeiro
- ROOTS—Canagria**, 23 bgs., Brown Bros. & Co., Vera Cruz; **Ipecac**, 8 bgs., G. W. Vanderhoeve & Co., Rio de Janeiro; **Jalap**, 15 bls., 9 bgs., Brown Bros. & Co., Vera Cruz; **Licorice**, 1,980 bls., McAndrews & Forbes & Co., Piraeus; 107 bgs., Banca Commercial Italiana, Catania; 394 bls., McAndrews & Forbes & Co., Barcelona; 189 bls., Lawrence, Johnson & Co., Seville; 10 bls., Intercean Forwarding Co., Seville; 344 bls., P. H. Petry & Co., Seville; 2,271 bbls., 5 bgs., Brown Bros. & Co., Seville; 25 cs., Banca Commercial Italiana, Genoa; 78 bls., Pataglino, Palermo; 78 bls., Brown Bros. & Co., Catania; 90 bgs., Banca Commercial Italiana, Catania; **Sarsaparilla**, 10 bls., Caraval Co., Vera Cruz; 14 bls., Trans Oceanic Commercial Co., Vera Cruz; 21 bls., 7 bls., Brown Bros. & Co., Vera Cruz; **Squill**, 50 bgs., P. Pastacaldi, Catania; **Valerian**, 30 bgs., Brown Bros. & Co., London
- SALTS—Bath**, 7 cs., F. R. Arnold & Co., London
- SEED—Canary**, 1,190 bgs., Smith & Schipper, Buenos Aires; 404 bgs., Anglo London-Panama National Bank, Buenos Aires; **Caraway**, 162 bgs., Lawrence, Johnson & Co., Buenos Aires; **Cardamom**, 9 cs., Brown Bros. & Co., London; 9 cs., Brown Bros. & Co., Colombo; **Castor**, 516 bgs., P. N. Gray & Co., Port au Prince; 111 bgs., Southern Sales Corporation, Port au Prince; 120 bgs., A. Behrens & Co., Gonaves; 66 bgs., 38 pkgs., New York Pacific Commercial Co., Port de Paix; 41 bgs., Son Trading Co., Port de Paix; 69 bgs., Huttlinger & Struller, Port de Paix; 46 bgs., A. J. Duley, Port de Paix; 66 bgs., Yglesias & Co., Port de Paix; **Linseed**, 65,453 bgs., Rosario; 17,962 bgs., Spencer, Kellogg & Sons, Inc., Buenos Aires; **Medicinal, Miscellaneous**, 300 bgs., W. H. Small & Co., Genoa; 500 csks., Banca Commercial Italiana, Genoa; 900 bgs., A. Fasolo, Genoa; 500 csks., H. W. Doughton, Inc., Genoa; **Mustard**, 118 bgs., 100 bgs., Brown Bros. & Co., London
- SHAVING CREAM—Medicinal**, 7 cs., F. R. Arnold & Co., London
- SOAP—Medicinal**, 10 cs., F. R. Arnold & Co., London; 1 cs., E. Fougere & Co., London; 20 drums, Innis, Speiden & Co., London; **Olive**, 35 cs., Marden, Orth & Hastings Corporation, Seville; 123 cs., Eschawaria Bros., Seville; 44 cs., Boulier, Frater, Leather, Inc., Seville
- SODIUM PRUSSATE—77 csks.**, National City Bank, London; 56 csks., Brown Bros. & Co., Liverpool
- SPICES—Cassia**, 2,900 pkgs., National Bank of Commerce, Padang; 841 bls., Irving National Bank, Padang; 31 bls., H. F. Winter & Co., Padang; 1,135 bls., E. S. Kah & Valk Co., Padang; 1,109 packages, Brown Bros. & Co., Padang; **Cinnamon**, 65 bls., Brown Bros. & Co., Colombo; **Chips**, 100 bgs., J. Travers & Co., Ltd., Buenos Aires; **Quills**, 360 bls., 300 bbls., 200 bls., J. Travers & Co., Ltd., Buenos Aires; **Ginger**, 60 bgs., Frame & Co., London; **Mace**, 32 cs., Catz American Co., Macassar; **Nutmeg**, 38 cs., 24 cs., Rutgers, Bleeker & Co., Macassar; 325 cs., 93 cs., Bolle, Watson & Co., Macassar; 431 cs., Holtrans Co., Macassar; 425 pkgs., E. Boissevain & Co., Macassar; 87 cs., Catz American Co., Macassar; 416 bgs., Frame & Co., Macassar; 146 bgs., The Bank of Commerce, Padang; 76 bgs., Dodge & Olcott Co., Barbados; 278 bgs., Brown Bros. & Co., Padang; **Pepper**, Black, 5,856 bgs., Kuhara Trading Co., Batavia; 507 bgs., J. H. Recknagel & Son, Batavia; 2,400 bgs., National Provincial & Union Bank, Batavia; 1,200 bgs., Irving National Bank, Batavia; 1,201 bgs., Bank of New York Batavia; 600 bgs., Mississippi Valley Trust Co., Batavia; 1,200 bgs., Bankers Trust Co., Batavia; 600 bgs., Citizens National Bank, 140 bgs., National Bank of Commerce, Padang; **White**, 165 bgs., New York Overseas Co., Singapore; 84 bgs., Brown Bros. & Co., Singapore
- SPONGES—184 bls.**, J. H. Rhodes & Co., Nassau; 93 bls., American Sponge & Chamois Co., Nassau; 274 bls., Cunard S. S. Co., Nassau; 116 bls., 9 bls., Brown Bros. & Co., Nassau; 192 bls., Lasker & Bernstein, Nassau; 97 bls., National Sponge & Chamois Co., Nassau; 426 bls., Cohen & Co., Nassau; 42 bls., A. Isaac & Co., Nassau; **Clippings**, 200 bls., Lasker & Bernstein, Nassau; **Refuse**, 25 bls., J. H. Rhodes & Co., Nassau
- SULPHUR—Green**, 400 bbls., Brown Bros. & Co., Malaga
- TAC—400 bgs.**, L. A. Salomon & Co., Genoa
- TARTAR—464 csks.**, Southern Pacific Co., Alger
- TOILET POWDER—Medicinal**, 2 cs., F. R. Arnold & Co., London; 2 cs., 2 cs., F. R. Arnold & Co., London
- VIROL—52 cs.**, Etna Chemical Co., London
- WATER, MINERAL—2 cs.**, J. Personeni, Genoa
- WAX—Bees**, 3 bbls., Wessels, Duval & Co., Antofagasta; 150 bgs., 24 bgs., F. Ricart & Co., San Domingo; 3 seroons, W. R. Grace & Co., Puerto Plata; 1 bg., Gustave Amsinck & Co., Inc., Puerto Plata; 4 seroons 6 pkgs., Blackburn Trading Co., Puerto Plata; 4 seroons, Gaston, Williams & Wignmore, Inc., Monte Cristo; 4 seroons, J. J. Julia & Co., Monte Cristo; 2 bgs., J. J. Julia & Co., Samana; 1 bg., A. Behrens & Co., Gonaves; 3 bgs., New York Pacific Commercial Co., Port de Paix; 8 bls., Huttlinger & Struller, Port de Paix; 9 bgs., A. Behrens & Co., Port de Paix; 18 bgs., F. Ricart & Co., Macoris; 6 bgs., Blackburn Trading Co., Macoris; 9 bgs., Ultramarines Corporation, Macoris; 7 bgs., Mecke & Co., Macoris; 10 bgs., Ultramarines Corporation

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A liquid containing not less than 99 per cent by weight of  $C_2H_6O$  or  $CH_3CO.CH_3$  (58.05). Preserve in well-closed containers, in a cool place, remote from fire.  
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